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AUGUST, 1912

ELECTRICAL MERCHANDISE AND SELLING ELECTRICITY

Published by THE RAE COMPANY. Publication Office, Brattleboro, Vermont

New York Office, 17 Madison Avenue

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Let us build your next one

Federal Sign System (Electric)

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CHICAGO

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At the Office
In Any Place
of Business
BENJAMIN
PLUG CLUSTER

is a great convenience because it gives you two outlets where you have had but one, doubling the capacity of your sockets by doing the work of two. You may attach any other electrical appliance that you wish and burn your lamp at the same time. It requires no extra wiring—you simply screw it into the socket.

For sale by all Electrical Dealers
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Chicago



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The distributors of
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OF
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Warren, Ohio

Packard

The Pioneer Electrical Industry
That Has Made Warren Famous

Its Transformers, Insulating Materials,
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are standards of highest excellence.

THE PACKARD ELECTRIC CO., 342 Dana Ave., Warren, Ohio



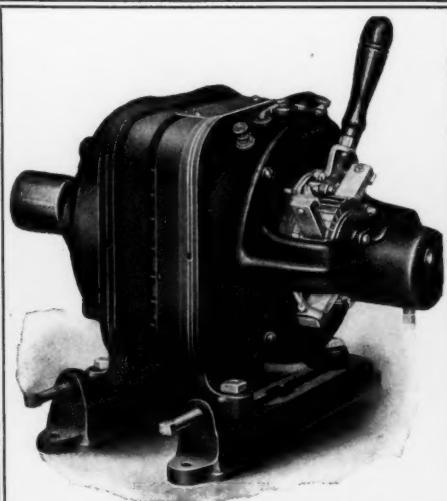
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The best way for you to begin to find out that they are the irons for you to sell to the public, is to take one apart and see its simplicity. Then use it yourself or have your wife use it and see its efficiency. We'll show you the profit you can make selling them and how to sell them.

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DETROIT, MICHIGAN : U. S. A.

Oldest and Largest Makers



There is a Larger Profit in Selling Kimble Motors Than Any Other Line

The profit is larger because the selling cost is less. The selling cost is less because they are easier to sell.

They are easier to sell because they do the most work with the least cost at the meter.

ALTERNATING CURRENT ONLY

Kimble Motors are single phase variable speed, reversible alternating current—and polyphase variable or constant speed alternating current.

Sell Kimble Single Phase Variable Speed A. C. Motors

To printers, for job and cylinder presses.

To picture shows, for moving picture machines.

To theaters, halls, churches, hotels, clubs, libraries, restaurants, hospitals, etc., for ventilating fans, including the complete Kimble Reversible Fans.

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To EVERYBODY who deals with a FAIRLY UNIFORM LOAD, and to whom the power to vary speeds in either direction by infinitesimal gradations or to reverse instantly is of value.

Kimble Alternating Current Motors show remarkable efficiency records at reduced speeds. They start on $\frac{1}{3}$ to $\frac{1}{2}$ their full load current; hence do not disturb the line.

Sizes 1-6 to 5 H. P.

60 Cycles—110 or 220 volts.

Send for our catalog—a liberal education in alternating current.

Kimble Electric Company
1115 Washington Boulevard, Chicago



ELECTRICAL MERCHANDISE.
SELLING ELECTRICITY

VOLUME XI AUGUST, 1912 NUMBER 8

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The Merchants at UTICA, N. Y., Read Our Advertising, Asked for Information and Have Just Closed Contract with Us for a Similar Installation.

(This ad appeared in "Selling Electricity," February, 1912. It still holds true.)

This is the New Haven Pole

MADE OF THE BEST QUALITY GREY IRON CASTING

Showing the

Ornamental Luminous Arc

THIS is the installation that is drawing street-lighting committees from all over the country some nights from two and three different cities.

Why not get the merchants in your city interested in ornamental street-lighting either as a merchant's association or a straight better-street-lighting campaign. We can send you data which will enable you to put a proposition to those interested in your city. Write for it.



Ornamental Lighting Pole Co.

Poles for all Types of Lighting

19 Battery Place

New York

Are You One of the 2,489

Central Stations and Electrical Contractors who are selling

Thor Electric Home Laundry Machines?

If not, you are limiting your business instead of developing it. THOR dealers secure the orders not only because they offer their customers the best washing and wringing machines made, but because they can give them a selection from 29 sizes and styles at prices from \$35 up.

Our Liberal Terms

of payment and Free Trial conditions will enable you to develop a permanent and profitable business in these machines during the summer months.



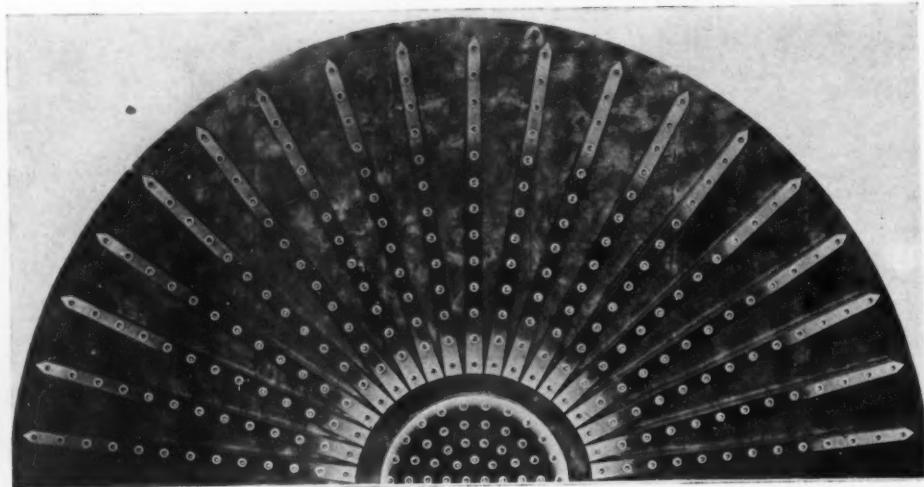
Write for Free Catalog H Today

HURLEY MACHINE COMPANY

25 South Clinton Street, Chicago

NEW YORK
1012 Flatiron Bldg.LOS ANGELES
3rd and Main Streets

These Two Signs Are Building in the Greenwood Factory



This one is a sunburst for the front of a theater. The background is unique—an antique finish that is striking. We've never seen anything like this combination of color and motion. It's another happy creation of The Greenwoods.



The "Be An American" Sign will be erected on the 22-story building of the American Bank and Trust Company, in Birmingham, Ala. The letters are 10 feet high. It bears a slogan which will advertise both the Bank and the office building. We showed them how to do it.

Here are two new ideas—the kind you can sell in your town. There's always this touch of

Individuality

in the Greenwood product. It's ready to work for YOU.

We furnish designs for spectacular outlining and movable fronts, too. Send us photographs of the building and correct measurements and we'll land the business together.

Greenwood Advertising Company
Knoxville, Tenn.

ELECTRICAL MERCHANDISE AND SELLING ELECTRICITY

Edited by FRANK B. RAE, Jr.

EARL E. WHITEHORNE, Managing Editor

The Newspaper and the Central Station

Some Interesting Expressions from Both Sides that are Worth Constructive Application

[Some time ago, we received a letter from a central station man who hates the newspapers and suffers from it. He cursed them and reviled them as a set of "blackjakers and hold-up artists." Of course he was wrong but for his benefit and possible influence on other central station men who share this feeling, we published his letter with our comments, editorially, in the March issue of "Selling Electricity." We pointed out that there is a lot to be said on both sides; that though it is true that many newspapers do not co-operate as they should, yet neither does the average central station. So there you are.

It started an interesting train of thought and we decided to follow it up and sound the active sentiment on both sides. We wrote a letter to 100 of the most progressive central stations in the country asking them this question—What are you doing to co-operate with your local newspapers and profit by all the boosting and support they can give you, if they want to? We wrote to a number of newspapers—editors, business managers, and reporters—in similar vein. We have received a great many replies and we find, as we feared, that though no man will deny the power of the press, yet the majority of central stations are apparently doing nothing to cement a progressive alliance with this power. They are supinely suffering this opportunity to drift along just out of reach, and the newspapers respond to this inertia as might be expected. They keep their eye on the central station and let it go its way, till its way appears crooked, often because misunderstood. The added profits which a mutual appreciation and a little co-operative effort would create are simply not born.

We offer below, the opinions of men whose convictions are based upon experience on one side or the other. Only a few of them are given. The majority of the central station men who have discussed the matter with us, express no strong feeling for the reason that they have been drifting with the rest. But those who have thought deep and followed thought with action are of one mind. Read this with your eye to its application in your own town. Are these men right? If so, can you justify neglect of this opportunity?—Editor.]



R. HUGH O'DONNELL,
Business Manager of *The Philadelphia Press*, one of the leading morning papers of Philadelphia, says:

"The editorial in the March number of *Selling Electricity*, entitled 'The Gentle Art of Blackjacking,' is worth attention. I endorse the comment of the editor. Surely the cure for muck-raking and blackjacking is not more muck-raking and more blackjacking. The quotation comes from a man who seems to be much of the kind of thing he is denouncing, and if he is now awake to the necessity of developing a practical co-operation between the electric light companies of the various cities and the newspapers of those communities he is beginning 'back end to.'

"The author of the quotation attacks the integrity of the newspaper—claiming that in many cases the newspapers 'aid and abet' and are even the accomplices of grafting politicians, who rob each other as well as the taxpayers and the electric light companies—simply because in some instances newspapers have either taken a negative or an aggressive position in regard to attacks on electric light companies in favor of the community where the facts, according to the writer of the article, scarcely warranted the action. Generalities are usually wrong. Newspapers are not in business to either educate people or right wrongs. Their object is simply to give the interesting news. If they can only get it from one side they will give it for that one

side. If they can get both sides they will give the both sides and they will give as much of either side as either side makes its side interesting. Politicians are more likely to present good copy even if just sufficiently based upon facts to make it available. They know human nature, understand the law of average and usually appeal to the individual or selfish interests of the people and, therefore, their story makes attractive reading.

"To begin with, the electric light companies must stand the gaff and prejudice which the people naturally or otherwise hold against corporations which are popularly supposed to be bloodless and soulless. And whatever argument an electric light company would have in defense of its position regarding its relation to the community must be substantiated with an especially good story of defense, humanized, and the facts made so thoroughly plain—because they are necessarily prosy—that, despite themselves, they will prove interesting to the somewhat disinterested or rather prejudiced reader. Politicians work on the accumulative effect of years of catering to the people from every angle that will meet with approval, while companies, like electric light corporations, whenever an ugly situation arises between them and the community, expect to put over their side of the case in a day or two story-telling, which is impossible.

"This statement holds good not only with electric light companies, but also with street car companies and every other kind of public service corporations. The larger,

fairer, and most progressive of such corporations discovered this fact some time ago and have already begun to educate the people regarding the business of these corporations by advertising in the daily papers, explaining the intricacies of their business and just what they are doing for the localities in which they have residence. In Philadelphia the Rapid Transit Company did this most successfully with a public decidedly inimical at the start. The United Gas Improvement Company of Philadelphia follows such a campaign year in and year out. Hundreds of corporations throughout the United States and in dozens of cities are equally energetic and with excellent effect. As a result, it is impossible, through political intrigue or otherwise, to work up an ugly case against those corporations because they have already won the confidence of the people, who learned by reading their advertisements that those same corporations are justified in doing what they do by conditions governing them.

"There is no denying the fact that politicians do sometimes, as a matter of profit to themselves, work up strife between the community and public service corporations, but they are only able to do so through the negligence of these corporations to exchange confidences with the people. Public service corporations are business institutions, just like any other mercantile companies, and they cannot expect to force their merchandise on an unwilling public unless they get that public to understand that it is getting value received for the money it pays. That is true of business

the world over. Confidence is the essence of business from the banking house down to the common bargainer. Instead of decrying against newspapers, who sometimes innocently sin in siding too much with the public simply because the other side has not adequately presented its case—it would seem to me that the proper remedy for the electric light company is to 'take the bull by the horns' early in the game and educate the public to justice by properly advertising the corporation's methods and merchandise.

"The crowd is usually fair. There would then be no chance for the politicians with the blackjack. The newspaper would be glad to give the facts on both sides. And, indeed, it could not do otherwise and remain a newspaper, for every newspaper of consequence is dependent upon popular favor, which can only be gained by square dealing and fair statements. Too many business people have the idea that a newspaper is dependent upon business interests. They lose sight of the fact that the newspaper, like the merchant, appeals to the great, thrifty, thinking, middle class of people. If the newspaper has the good will of that enormous majority of the community, the advertiser, whether or not he likes the policies or sentiments of the newspaper, must do business with it, because in doing business with it he is doing business for himself in presenting his merchandise, through the newspaper, to that great body of readers.

"There was a time, before the newspaper required colossal capital, stupendous labor and trained brains for production, with its small circulation, it was dominated by the bigger merchants, the public service corporations, and the political cliques. But the entire system has changed. It no longer caters to the few. Commercialism has purified it, despite itself. The average reader is the real editor and he is beyond the reach of prostitution, demanding the truth in his newspaper, and if his paper does not give it to him, he subscribes to one that does.

"During the recent labor strike in Chicago publication of the daily newspapers was suspended for some days and immediately the importance of journalism in commerce was emphasized by the fact that retail business dropped off 50 per cent. Yet the business houses had their doors open, with just as much capital and merchandise behind them. But the connection with the average daily reader was cut off. The Gibraltar position of the department stores in business is naturally due to the power of the press. Let every newspaper in any city decline to accept department store advertising for six months and in another six months there would be no department store.

"The newspaper that goes into the most homes is the best because it succeeds in reaching what it was created for—the family, the beginning and end of all business transactions. The modus operandi of reaching the conscience of the people is just the same for the electric light companies as it is for the politicians or the retail merchant. It is the very same process that the newspaper itself must go through to maintain its existence. And while the reaching of as many homes as possible is the object of its being, on its success in doing so depends the means for all business promotion. If public service corporations would take their business and the people as seriously as other business concerns do and use the same methods to justify themselves and their merchandise, there would be no reason for such muck-raking and blackjacking attacks

as that given in the quotation published in connection with the editorial mentioned."

Mr. Robert P. Williams, of the editorial staff of the *Knoxville Sentinel*, Knoxville, Tenn., and correspondent of the leading papers of Chattanooga, Nashville, Memphis, and Atlanta, expresses the feeling in the smaller city. He writes:

"The public utility corporation and a newspaper bear the same general relation with the public. Both are serving the public and both should work for the best interest of the public for therein lies their own prosperity. No good citizen wants any corporation to give them something for nothing. Each citizen realizes that the stockholders must have interest on their investment and the highest courts of the land hold that they are entitled to such.

"No city in any state has an asset more valuable to the people as a whole than a 'free and untrammeled press,' that will speak out of the evils in city, state, or national government and keep itself free from partisan spirit or the control of men who are at the head of 'Joy Riding' corporations.

"As a newspaper reporter I do not believe that the average paper will co-operate in blackjack methods. Newspapers and newspaper reporters must have grounds for each story printed. In every state there are laws against libel. The duty of a newspaper is to print the news. If the public utility company in the city is not giving the city but 1,000 candle power in its arc lights when the contract specifies 2,000 candle power and the paper knows this to be a fact it is the duty of the paper to tell the people. This might be called muck-raking by some.

"But the lights are paid for by the taxes collected from the people and though the people pass under the lights they do not know the candle power. If the company is furnishing John Smith power for so much and charging William Jones twice that much for power it is the duty of the newspaper to expose it, for in a newspaper the people look to see what is going on. A business man has not the time to go around and find out these things so he subscribes for his paper. If a public utility company desires a franchise, unless the newspaper tells the world, nothing will be known of it outside the circle in which it was given and secured. The press is the informer of the public. It has a duty to perform. If it speaks for the people, then it does its duty and is patronized by all. Each year the press is growing away from influence that has been held over it.

"In this state there was one of the leading papers whose policy was dictated by a certain railroad. For years and years this company contributed to the support of that paper to control its policies, but finally one man with brains and without money took the people into his confidence and built a competing railroad into the city of Nashville that was fought by this paper and the interest that owned it. To his memory the city of Nashville has erected a monument, but the monument that he erected will live longer and each day shows his great work in the line of railroad from Hopkinsville, Ky., to Harriman, Tenn., across the Cumberland Mountains, possible because Jere Baxter took the people into his confidence and with their support built the Tennessee Central Railroad without money.

"The author of the 'Blackjack' letter is wrong. It is my pleasure to cover the street railway and electric light company in this city, also the gas company.

"President C. H. Harvey, of the Railway and Light Company, is one of the public service men that take the newspaper boys into his confidence. If he is trying to get a right of way for a new line and knows that if some individuals hear of it, there will be an attempt to hold up the company, he calls the boys and tells them the story with the request that they hold it until released. And true to their honor the story is never published until released. It is so with the gsa company, of which John E. Hood has been secretary and treasurer for twenty-six years, and our local utilities lack no co-operation from the Knoxville press.

"A newspaper is in the same boat with any other public utility corporation, save only it has the power to arouse public sentiment and stop the 'joy riding' that some of the corporations have been doing. Both must live and both can if they will work for the common good."

As expressing the central station point of view, the following letter, by an officer of one of the largest of our holding companies, is interesting. It affects the policy of many central stations, and was written to the managers of these properties for their guidance on this very subject. It reads:

"We desire to call your attention to the urgent necessity of getting in personal touch with editors and editorial staffs of the newspapers of your city.

"The editorial and business departments of many newspapers are really separate institutions guided by different groups of men. Acquaintance with the business managers is not sufficient to obtain uniform fair treatment in the news and editorial columns.

"It is foolish to imagine that all newspapers can be subsidized. Our organization has neither the desire nor the money to attempt such subsidization, even when it is possible. As public institutions our properties are legitimate subjects for editorial comment and criticism. Their important acts are proper subjects for news stories. We should not try to escape publicity, but we should endeavor to see that the editors and reporters know us, have confidence in us, and present only the facts to their readers.

"Managers must find means to come into social contact with the editors and writers, and on every suitable occasion impress upon them our policies and methods, and how our particular kind of management is of benefit to the community. Let every editor and reporter find a welcome in your private office and if possible induce him to become a regular caller. Give him what news you can with prudence about physical improvements to the property, changes in personnel, and any innovations which the company is adopting. Hand him a copy of any new literature which you may have available and call his attention to any points which impress you. Give out all the optimistic information about the city and its prospects that you can. Above all, treat editors and writers as just what they are to you and our interests—namely, men of importance, and be absolutely fair with them. Do not make the mistake of trying to deceive them. They are used to this, and you cannot succeed. Rather create a condition where these men have your confidence and you theirs.

"We have noted with much regret that many of our managers are neglecting the vital duties which we point out in this letter. They fail to cultivate the editors and writers and then cannot understand how false and malicious stories appear, or why they cannot obtain fair newspaper treatment in times of

trouble and stress. We shall expect every manager to follow the suggestions mentioned herein and shall be very slow to accept any excuse whatsoever for their nonfulfillment. Please acknowledge receipt outlining briefly the newspaper situation at your property."

The writer of that letter states:

"We have no objections whatever to it being known that we recognize the importance of correct relations with the newspapers and make this subject a practical and never-ceasing study. Out of the 150 or more newspapers in the cities and towns where we operate, very few if any are positively unfriendly to our interests, and a great many of them are enthusiastic boosters. We never aim at influencing editorial opinion through our advertising, but rely entirely on acquainting the editors and writers with the facts."

"We are careful to see that copies of all addresses of general interest made by our officers are sent to the newspapers at local properties, and on the occasion of our annual convention I send out an advance news story and experience has shown that this is welcomed by the editors."

"In the above letter, the last paragraph is misleading, and purposely so in order to reach two or three of the managers who had been back-sliders in the matter of correct newspaper relations. As a matter of fact, nearly all of our managers give this subject careful and expert attention."

The commercial manager of another chain of lighting companies writes:

"There is absolutely no doubt but what a newspaper can secure for a company a considerable increase in its business if the company will but use fair space with well-prepared copy. It should be a business proposition and not one of trying to retain the good will of the editors. The best way of retaining the editor's good will is to put into your copy a business proposition that cannot help but bring returns and then to tell him, the editor, that the advertising pays."

"We make it a point to see that our newspaper men are invited to our demonstrations; in fact, to all of our public affairs. We have had them on our works inspection; we have had them inspect our coke ovens; we have them as our guests during any special demonstrations. I do not think there is any question but that, if we would go a little further into this matter, we could still keep up our increases, due to our intelligent advertising and cut down considerable of our soliciting expenses."

One of the most progressive companies in the middle west says:

"My impression is that all things being equal, the newspapers extend to the central station the same degree of friendliness that they receive from the central station."

"Desiring the good will of the public, a public service company must treat the people fairly and courteously. By according the newspapers this same consideration the press will form the correct impression concerning a company's attitude towards the public and unless influenced by some ulterior motive will gladly avoid any misrepresentation."

"Personal friendship between the officers of the company and the editors and business staff of a paper will assist greatly in maintaining harmonious relations. By following the policy as outlined above, our relations with the newspapers in the different towns in which we operate have been very pleasant and satisfactory."

The sales manager of three prosperous properties in New York State says:

"I have nothing better to suggest than to deal fairly with them and the chances are they will deal fairly with you. If a newspaper buys electric service they should pay for it at regular rates. If a central station buys advertising space they should not expect favors not accorded to others. We treat the purchase of advertising the same as we treat the purchase of any other commodity. We expect to get value received for what we pay for. We try to conduct our affairs in such a manner that if a paper is only fair we always welcome publicity on almost any subject. Our relations with the various papers are most cordial because both the papers and ourselves believe in a 'square deal.'"

One "small company" man writes:

"The situation here is a rather peculiar one, in that up to the time I came the company had the entire support of one paper and no support whatsoever from the second paper. The support of the first paper was due to special privileges which the company granted this paper in connection with their power rates and, further, due to advertising that the company placed with them. None of these privileges or advertising were given to the second paper."

"I, personally, do not believe that it is good policy to buy the co-operation of newspapers, as we have done in the past in the case of this one paper. The companies which I have previously been connected with have always enjoyed the co-operation of newspapers without granting any special privileges."

"My method of procedure would be to become personally acquainted with the men in charge of the papers, obtain their confidence, and whenever any questions arise pertaining to the company they would always give me an opportunity to make a statement to show the company's side of the question. If I were able to convince them that we were right, the newspaper would act accordingly. If my excuses were not sufficient to convince them, they would go after us—but in a fair sort of a manner, which would be accounted for by my personal relations with the heads of the papers."

"I have endeavored to follow up this same scheme here and have been working at it for about a year and a half. I have succeeded apparently in the first case, but the second paper still looks upon us with suspicion and whenever they have an opportunity to knock us they will do so before they have inquired as to the true facts of the case. I am in hopes, however, that in due course of time I will receive as fair treatment from the second paper as from the first."

Another syndicate manager says:

"We favor the newspapers in the towns in which we operate to the very fullest extent possible. We not only carry advertising in them all, but we aim to keep their reporters posted as to the doings of the companies and their future plans, etc. We find that we secure a great amount of good in this way as it gives us a great deal of valuable advertising for which we do not pay anything. At the present time we are working with the papers in one city toward the development of some co-operative full-page advertising and the plan promises to work out very favorably for us."

"I am of the opinion that when a central station man hates the newspapers, if he will stop long enough to examine into his own virtues he will be able to find plenty of

reason why the newspaper takes an attitude that excites hatred on his part. If we had a manager on any of our properties that took such an attitude we would immediately look for a new man."

There seems to be no difference of opinion among the men who are doing things. No contrary views have been expressed in all the correspondence this has elicited. Where is the virtue in a conviction that is not put to work? The situation is best summarized, perhaps, by quoting from our editorial of March:

"We all know of situations where unjust conditions exist, where the power of the press is prostituted in the interests of the grafters and sold to the sop of mob acclaim. But if it is a power—and we know that it is—why is it not enlisted in the cause of the 'square deal' for the central station and the public, where the cause is one? There is good in all men save few; is it not time that the central station took the blackjack to all devious, dubious, 'gum-shoe' methods of its own and did all its business in the open? All any honest, efficient public utility needs to guarantee its permanent prosperity is a public that understands, approves, and appreciates, and when the newspapers and the magazines are encouraged and assisted to tell that story, it will develop a human interest that cannot be equalled in any tale of wrong."

"The time for you to begin the work is now."

R. A. Field

Mr. R. A. Field, who for the past eleven years has been connected with the Rome (N. Y.) Gas, Electric Light & Power Co., has resigned as superintendent of that company, to assume the general management of the several properties operated by J. G. White & Co., in Kentucky, embracing the



R. A. Field

cities of Frankfort, Owensboro, Bowling Green, Hopkinsville, and Clarksville, and both the gas and electric utilities in all five cities.

Mr. Field is widely known in the industry as a "live wire" and a "booster," having played a prominent part for years in the annual carnivals that have attracted much attention to Rome, N. Y., as an industrial center.

New Men in Toledo and Peoria.

Mr. T. D. Buckwell, formerly commercial manager for the Toledo Railways and Light Company at Toledo, Ohio, has resigned from that company to become manager of commercial department for the Peoria Gas & Electric Company, at Peoria, Illinois.

Mr. W. H. Marshall has been appointed commercial manager and Mr. C. H. Felker assistant commercial manager of the Toledo Railways and Light Company.

Expanded Loyalty

*A Paper Read Before the General Session of the
Seattle Convention*

By PAUL LÜPKE

"When a man, in a serious moment, stops to consider whether or not he is doing his part in the world's work, his duties to his family and his country naturally receive first consideration. He fully realizes that, by all laws of nature and men, he is responsible for the well-being of the former and that he is absolutely dependent upon the protection the latter affords him. Therefore, he reasons that he must be loyal to both."

Now, when he has arrived at that conclusion, as he must, let him take the next obvious step. How does he secure the means to prove his loyalty to family and country? Only by doing a man's share in promoting the welfare of that particular industry with which he has chosen to throw in his lot. That is self-evident. A man's obligations to his family include the duty to



Paul Lüpke

provide reasonable comfort and to make provisions for emergencies; his obligations to his country embrace the honest fostering of its material progress, and to neither the one nor the other can a man do justice unless he has the welfare of his industry at heart. If but all men in all industries realized that simple truth many a problem that sorely vexes us now would be solved.

To create loyalty of the true breed, the concern that expects it must prove itself worthy of it; that is the indispensable requisite.

This Association has blazed a trail that should develop into a common highway, and many of the companies have already progressed far upon it; they are steadily marching ahead and in spite of taunts and jeers they are keeping a steadfast eye upon the final goal. Believe me, the companies have had their day of Damascus, they have seen the light, they realize that they owe a faithful man something more than mere wages, they are trying hard to find the right way to instill into the minds of their employees the conviction that their concern is the company's concern, and to bring home to them the fact that honest service, together with reasonable thrift, means security under all circumstances, just as much security, and perhaps more, than a man's own business would provide. When that disposition of the company manifests itself, and rare indeed now are the cases where it does not, it is distinctly up to the employee to do his part. Now what is his part?

In the first place he must be an honest man; unless he is that he can never be a desirable employee. That statement needs no elaboration. Next, he must to the best of his ability carry out the duties directly assigned to him. That also is self-evident.

But the man who cannot and does not expand his loyalty beyond these two axioms is the rankest standpatter. All progress lies beyond his vision and comprehension; he is lucky indeed if he can manage to stay where he is.

"The only way to get more pay for what you do is to do more than you get paid for."

This is not a rehash of a hackneyed paradox, like the routine epigram salted with a grain of truth to make it palatable and seasoned with a pinch of wit to make it bite; it is nothing but a simple truth. If you will but look around you, if you will but observe dispassionately and without squint-eyed jealousy, the career of those who have risen at your very side, you must acknowledge that it is the truth; and, far better still, if you will but put it to the test in your own case, not in a haphazard, fitful fashion, not for a single day expecting full returns the next, but with faithful persistence day in and day out, you will prove to your own satisfaction that it is the truth. Don't be afraid that nobody will catch you at it. There is an eager watch set for the slightest manifestation of that kind of work, and there is no concern so puny but that it will manage to provide a proper reward for it, nor was there ever yet a trust too unwieldy to be moved by it.

Loyalty to your employer means a step out of your way whenever that step is necessary to conserve his interest. There are occasions when the sacrifice of a few minutes of your own time may save the company as much as your regular time is worth for several years. You are not loyal if you do not make that sacrifice. Yet, there are those who lull themselves into a comfortable sense of self-righteousness though they doff their loyalty with their overalls or lay it aside with their office coat. They slam the shop door behind them with a vicious the-company-doesn't-own-me bang, and sally forth to their own particular haunt among men to swing the sledge with the rest. I think they call that being independent.

Now let me tell you a plain fact, verified by years of observation. There is no more infallible way to tie yourself down to the fate of a hopeless underling than persistent knocking at the concern that employs you. Fools will praise you because you are like them, but remember, there is no poison more deadly than the blight of a fool's praise. Sensible men will treat you with contempt because you are making a fool of yourself, and you will establish a reputation that draws a dead-line across your path to advancement.

That is what this sort of thing will do for you individually; that it will not help your company I need not tell you; that it puts a blight upon the whole industry you may dimly realize. Why, then, in the name of common sense do you do it? If your knocks represent your honest conviction get out and keep at it; we will fight you but we can respect you. If your knocks are bred from stupid habit, want of thought, or bloated conceit, mend your ways, and quickly. We must have these ten thousand individual members of this association loyal to the core and in the broadest conception of the word. These ten thousand form quite a respectable part in themselves of that many-headed public opinion that yields the big stick, and if they put their minds to it, they can influence other thousands by the score. All that vast influence for the benefit of our industry can be secured if everyone connected with it does his part conscientiously in his own sphere, however limited that may be. Everyone of us has opportunity to discourage untrue, unfair, or exaggerated state-

ments concerning the central-station industry; let him use his opportunity consistently, firmly, and with discretion. But let everyone refrain from expressing opinions on subjects connected with our business "unless he be fully informed as to all the facts relating thereto and as to the purpose for which the information is asked."

Conduct of this kind presupposes that a man avail himself of every means to augment his store of general information and to broaden his views on all matters concerning the central-station industry. What better way is there to do this than by lively participation in the various activities of this association, where free interchange of ideas and experiences is the password?

And that free interchange is a duty which loyalty to your fellow employees imposes upon you. Do not allow yourself to fall into the false notion that you can help your weaker brother best by throttling your own abilities down to his limitations. Strive by all honest means to realize the rewards of your ambition, but after you succeed do not forget him. Be careful in all your dealings to give full credit where it properly belongs, and stand up like a man for any reputable fellow employee who seems to suffer through misrepresentation. Endeavor with all your might to eliminate the gall of misunderstanding that injects the bitterness into the endless strife that seems to be our lot. We are all but serving out the indeterminate death sentence fate has imposed upon us; let us in common charity try honestly to ameliorate the burden of it.

And now that I have roughly outlined in some fashion the proper business conduct of the central-station men, I make bold to offer a suggestion for the consideration of the Association.

Many of you will know that but recently the American Institute of Electrical Engineers has finally adopted, after years of deliberation, a "Code of Principles of Professional Conduct" wherein are given in concise form the rules that should guide the conduct of the professional Electrical Engineer. Would it not be proper, would it not be of great benefit to the industry, if this association promulgated a similar code, laying down the precept that should govern the business conduct of the central-station man? It would then be at least tacitly understood that when a man joins this association as an individual member he feels himself in honor bound to live up to this code. Would not this add greatly also to the appreciation of the value of our individual membership on the part of our employers and would it not altogether be a gaining stride forward in bringing about that community of common interest which is the basis of the solid progress of the industry?

The formulation of such a code is not a one-man proposition; it should be entrusted to a committee composed of the ablest men available, and for that reason I do not venture further than the mere suggestion that it be given consideration.

Interesting Lamp Statistics

According to the lamp committee, tungsten lamp sales now amount to a trifle over 25 per cent of the total output of incandescent lamps. The total sales for 1911 were 85,000,000 lamps of all types, an increase of 8 3-4 per cent over 1910. Carbon lamp sales are dropping very rapidly, being 53 per cent of the total in 1911, but estimated at not above 20 per cent of the total in 1912. The tungsten filament sign lamp was mentioned especially by the committee as a successful type and one destined to rapidly increased use.

"Jacking Up" The Show Window

A Few Illustrations of What Can Be Done With Lamps—Most Unpromising Material for Display

By G. A. BARKER



FTEN we find the man who though he gave promise of great possibilities at the start has reached the point where he is hardly earning his salt. It may be due to a lack of conscientiousness or to lax working conditions; but the time has come when this fellow needs a "jacking up," and usually the matter can be brought to his mind in a way that will react both to his employer's good and his own.

Perhaps you have never thought of "jacking up" the show window, but it is a safe bet that the front window of the average central station or electric store needs this stimulating process more than do most of the clerks and other employees. In short, insufficient attention is given as a rule to the trimming of the windows, and, instead of being a prolific source of inquiries and local sales, they become a somewhat excessive investment in glass for the admission of daylight. Is it not honestly true in your experience that the show windows of a great many electrical dealers have no more value from an advertising standpoint than that shown in Figure 1?

To be sure, this illustrates merely an empty display space while the average



Fig. 1. A good asset thrown away. A window and nothing more

contractor's store has at least some appliances placed on view, but too often the displays are not arranged in accordance with any businesslike, bound-to-succeed plan for catching the pedestrian's eye, engaging his attention, and awakening in him the desire to "come in and get acquainted." The same criticism obtains in the case of a lamentable number of central stations. Perhaps the ideas embodied in the displays described herein may benefit some of those whose show windows need to be "jacked up."

A particularly good display is that shown in Figure 2, which represents the front of a Cleveland hardware store. This hardware merchant carries on a "side-line" trade in electrical appliances that might be the envy of many a small electrical dealer, but one can hardly begrudge him his success, especially in view of his progressive show window tactics. The central feature of the display is a comparison between a Mazda

and a carbon filament lamp of equal candle-power. It is an attempt to educate the consumer of electric current to an appreciation of the meaning of that extremely elementary term—lamp efficiency. The discs of the meters, which are of the induction type, can plainly be seen by anyone

more attractive displays featuring lamps than any other electrical appliance. This is accounted for partly by the fact that since the recent reductions in lamp prices there has naturally been rivalry among the agents in getting the news to the public, and partly by the general desire to build

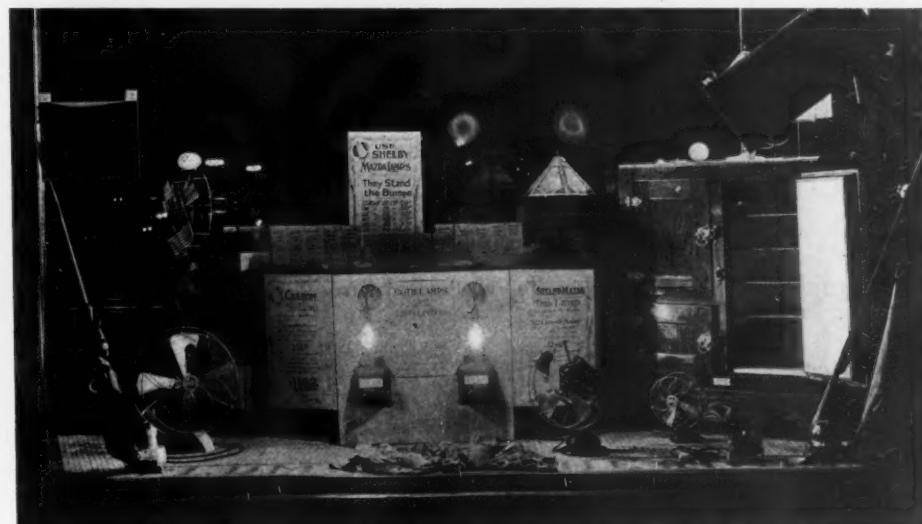


Fig. 2. This electrical display is in the window of a hardware merchant

who looks at the exhibit, and the disc of the meter connected to the Mazda lamp, of course, is seen to revolve more slowly than that of the other meter. This central display is supplemented by a layout of electric fans, flatirons, and vacuum cleaners. The only reminiscence of the hardware business is the poor, neglected refrigerator. The window just described has particular merit inasmuch as it contains something in motion; experienced window trimmers have found that a moving display will catch and hold the eye of the observer, other things being equal, far more often than a stationary display. Notice also the flags which are so arranged as to be blown by the fan at the left, adding another moving feature to the window.

It will be noticed that most of the window displays described in this article center around incandescent lamps. It is probably true that right at the present time there are

up a strong, profitable trade in this line of merchandise.

One of the most difficult articles to display in a really satisfactory and compelling manner is the reflector. Figure 3 illustrates a successful effort in this direction. The principle of symmetry may again be observed in this exhibit, which is enlivened by potted ferns and flowers, the green serving to set off the iridescent colors and delicate tones of the glassware very effectively. For an artistic display of this sort the placards, labels, etc., should not be too obtrusive or they will destroy the beauty of the whole arrangement. In this particular window there are only three placards. The effect of this display on passers-by—particularly the ladies—was like that of a powerful magnet on a bunch of iron filings, and numerous direct inquiries were received.

A novel feature which could scarcely fail to draw a sidewalk audience is shown in



Fig. 3. A window that shows the display possibilities in glassware

Figure 4. A rampart of five-lamp cartons in the back of the window is the main feature of interest; out of each of these cartons a circular hole has been cut and filled up with a piece of translucent paper imprinted with the name of the brand, while inside of each carton is a lamp on a "skedoodle plug," causing the name to be flashed out every few seconds. This exhibit is a good example of the way in which supplies that every dealer carries in stock can be used to make his show window a medium of first-class publicity.

A different departure in show window advertising is exemplified in Figure 5, which illustrates a recent effort of the "Electric Shop" of Buffalo, N. Y. A miniature house, complete in every outward detail, with yard and fence and with puppets sitting on the piazza, is the central display. The house is electrically lighted and in front of it is placed a number of copies of that excellent piece of commercial literature, "Wiring a Home," which, of course, is on distribution inside the store. Flatirons, fans, desk fixtures, and hair dryers are



Fig. 4. This window is a good eye-catcher. The lamp cartons contain lamps in skedoodle flashers

among the appliances shown in this not very large window.

As a final example of a carefully-planned window display Figure 6 is presented. In addition to the symmetrically grouped carton exhibit which centers around the bronze statuary elephant as an eye-catcher, this dealer has installed a large electric sign featuring the window exhibit. Part of the sign can be seen at the top of the picture; it extends clear across the store front, only half of which is here shown.

Any dealer who has in his "dead stock," or in his garret at home, such relics of by-gone days as obsolete fans, Edison bipolar dynamos, bamboo filament lamps, sockets of the "vintage of 1889," etc., can rig up a very attractive exhibit in his show window by placing this junk side by side with corresponding apparatus of the latest models. The various devices shown would of course be suitably placarded with dates indicating the antiquity of the old and the modernness of the new, with due emphasis laid on the fact that the dealer handles only the very newest of the new. Revolving discs bearing colored lamps and accompanied by suitable advertising placards can easily be rigged up by any dealer with a

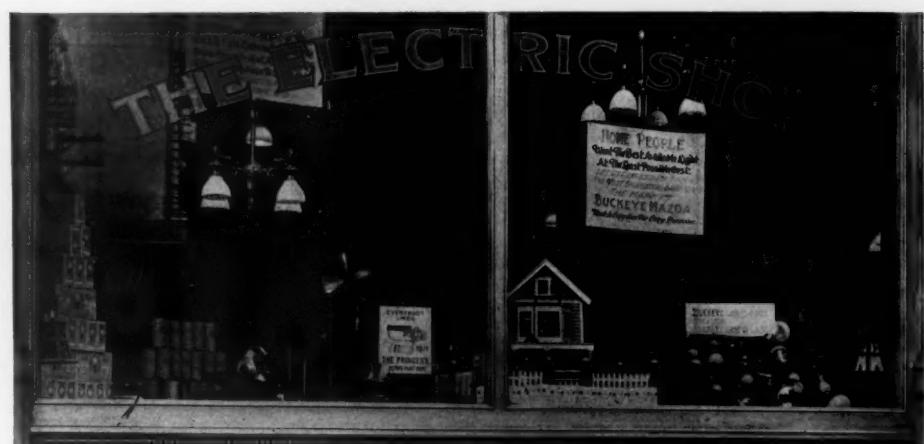


Fig. 5. In this window a model suburban house is utilized to advertise a contractor's service

little ingenuity and a spare fan motor.

After all, the real secret of window-dressing success is to "keep the stuff moving"—always to show the public something that suggests "Halt Here!" something that the

public really needs, and a sufficient number of "reason-why" suggestions to start these people a-thinking on that which they have seen.

August is not the "high-spot" of the lamp season, but if you wait for those busy days there will be little time to plan windows. Work out a series of window exhibits to last from now until the Christmas market. Put these ideas on paper and mark your tickler or your calendar. Do it now.

A Little Less Recrimination Would Help

The committee on vehicles stirred up excitement of a mild sort by bluntly stating that the rapid development of vehicle load depended upon greater co-operation upon the part of central stations. Exception was taken to this and several speakers showed conclusively that a good deal of the alleged non-support of vehicle development is of a piece with the prejudice against vehicles being unreliable as to mileage and climbing. As a matter of fact, the central stations are doing pretty well now. Less recrimination and more co-operation on all sides are needed to reap a harvest that is almost ripe. The vehicle man who disregards central station co-operation and the central station which overlooks the obvious advantages of vehicle load as off-peak business are equally out of touch with the real facts and spirit of vehicle development.

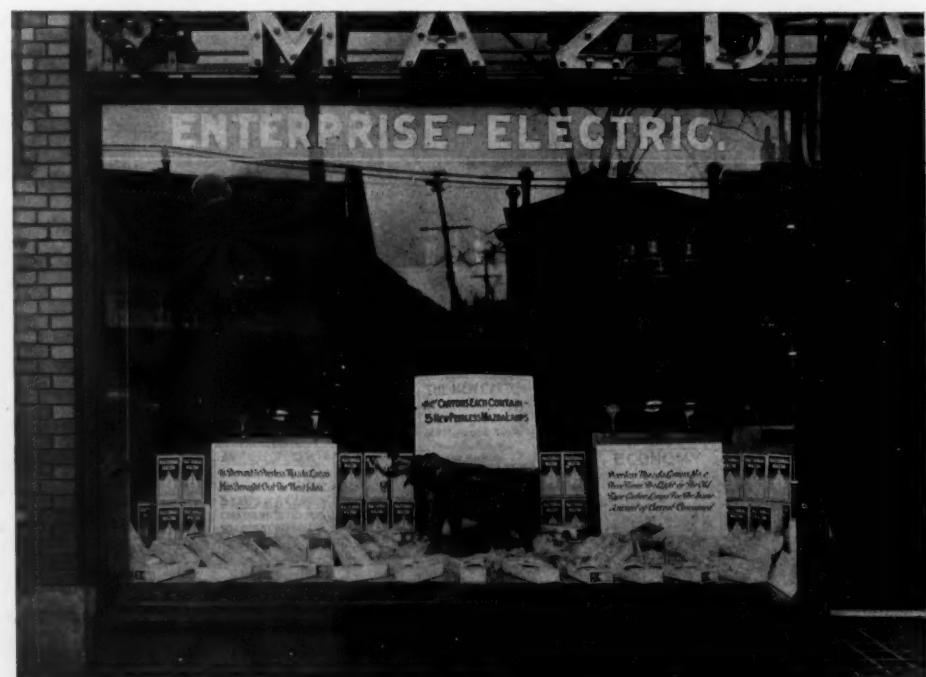


Fig. 6. This shows how an electric sign can be used in connection with a window display

The Money Factor in Store Success

A Few Applied Rules of Finance for the Guidance of the Electrical Merchant—How to Play Safe

By D. B. BUGG

[After all is said and done, the proof of the successful electric store or any other store is the balance of cash that the owner can spend at the end of the year. The location may be the best in town, the advertising clever, ample, and strong in "pull," the stock may be adequate and well displayed and the good ship may yet hit the rocks through bad financing. In this, the last article of his series, Mr. Bugg talks dollars and cents to the electrical merchant, the figures of cost, depreciation, overhead, and profit that must make up the final analysis. Compare his conclusions with your own balance sheet.

In concluding this series of articles, on the "essential planning" of an electric store, Mr. Bugg has agreed to extend his services in an advisory capacity to any readers of Electrical Merchandise who may wish to question him on any specific problems of merchandising which may be troubling them. This is an opportunity, for Mr. Bugg is well qualified as a recognized expert on store equipment and a long-time student of merchandising methods. If your conditions seem to be "different" or if the application of some of these recommendations is not clear in your case, write him about it. Get the opinion of a man whose judgment is based on an experience nation-wide. Address him, D. B. Bugg, care of Electrical Merchandise, 17 Madison Avenue, New York City.—Editor.]



HIGH ideal is the finest thing in man's existence—from the philosopher's point of view. The preceding articles in this series have shown what to avoid and what to do to obtain an ideal store for retailing electrical merchandise but the practical man wouldn't give two hoots for the most idealistic store in the world unless his balance sheets showed a profit at the end of the year.

Imagine a creditor receiving this in reply to a collection letter, from an overdue account:—"Replying to your request for payment, I have no money but I have an ideal store, which is conducted strictly in accordance with the ethics of good merchandising." A sheriff's attachment would certainly be the answer.

Let us see, then, what the electrical merchant is up against. Is it possible to make money by conducting a store according to prescribed rules?

The first thing for a would-be merchant to determine is whether or not he has or can obtain sufficient capital to embark in business. Optimism is an excellent asset and is practically essential to success but there are occasions when no amount of optimism, activity, or energetic advertising will bring customers to the store and the wise merchant must anticipate these occasions and have sufficient capital to tide them over. To engage in business and depend solely upon the immediate patronage of the buying public would be the height of folly. Despite all precautions every business at times suffers a marked depression and if the merchant with insufficient capital is overtaken by an unexpected depression, he is very apt to get in trouble.

The exact amount of capital necessary will depend on varying circumstances, but the prospective merchant should not enter the game blindfolded. He should figure out exactly what all his expenses will amount to—rent, light, clerk hire, advertising, office expense, porter, delivery, insurance, and every other item which can be thought of, and then add fully ten per cent of the total for incidentals which will constantly arise but which cannot be anticipated. In calculating the expenses, the proprietor should not forget his own salary. He should not expect to draw money for himself out of his business capital from time to time as he may need it, but should put himself on the pay-roll, the same as the office boy. In fact, the proprietor is as much of an employee as anyone else. His real boss is "the business" and he should consider himself under more inflexible supervision than anyone else in the store. Having totaled his entire expenses, the next

question to determine is the approximate amount of business to be done in a given period. This, of course, is a very hard thing to do and is really the critical point in the whole argument.

Some of the matters to be determined in this connection are the number of possible customers in the neighborhood or town or city from whom trade can reasonably be expected. Of course, every house that is connected to the lighting lines contains a possible customer of the electrical merchant but what percentage of these is to be made actual customers will depend upon the aggressiveness of the merchant. What percentage of actual customers is turned into steady customers depends upon "the service" rendered by the store, which has been elaborated upon in previous articles. If the store is to be opened in a certain section of a large city where local trade only is to be looked for, it should be made certain that there are enough local customers to be obtained to warrant the enterprise. That is, if the store is to be opened in the north end of the city, the residents of the south end should not be counted as possibilities. In other words, only those users of electrical current should be counted as possible customers, who are in the habit of frequenting the locality where the store is located.

The prospective merchant should reason to himself on this order, "There are ten thousand people in this locality who use electric current. By the proper business methods, can I get a sufficient number of these people into my store and can I sell them enough merchandise to warrant my opening here?" If these questions can be affirmatively answered, the merchant is justified in opening his store. If not, a better locality should be sought. There are plenty of them.

To come down to facts and figures, let us assume that a merchant has \$10,000 capital and has found a locality in which he can reasonably expect to do, say, \$50,000 worth of business in a year, would he be justified in opening a store with this prospect?

With the exercise of ordinary business acumen, a store in a suitable locality should be secured for a monthly rental of \$100, speaking of the average city or town. To fit up a store such as was described in our last article would cost approximately \$1,500. This includes show cases, wall cases, railings, partitions, and all fixtures and furniture. This sum will also provide for signs on the outside and inside and window and store decoration and display. Obviously, however, this does not include an electric sign. In figuring his annual expenses, the merchant should allow twenty per cent of his fixture investment for depreciation of fixtures. Not that the fixtures will be entirely worn out in five years time, but renewals,

additions, and renovations will require some money and it is best to overestimate this sum rather than underestimate it.

The average retail store figures that the salary of its sales force should be between five and seven per cent of the amount of the sales made. To be safe, we will assume that the electrical merchant pays the highest amount, or seven per cent of \$50,000, which will be \$3,500 per year for the salary of his sales force. Such an apportionment would pay for one sales manager or store manager at \$1,500 per year and two assistants at \$1,000 per year—three good, active, intelligent people, who could handle all the normal business. Very high-class employees can be obtained for these salaries and they would make more sales than twice the number at half the salaries. Cheap help is a detriment to any store. In busy seasons one of the office force and the proprietor himself can wait on customers. No proprietor should be above waiting on customers when necessary and should make it his business to know his stock as well as the sales clerks know it.

A good porter to keep the place clean and do what packing is necessary and an errand boy can be obtained for \$1,200 per year. This porter need not be an electrician but he should be a good mechanic and handy man who can make simple repairs when necessary.

In anticipating his expenses, the merchant should determine precisely what percentage of his sales he is to spend for advertising his business. Five per cent is not too much, because good advertising costs money. Five per cent of \$50,000 is \$2,500. There is always a temptation to cut down the appropriation made for this purpose as it very frequently hurts to put good money into as intangible a proposition as advertising always is; but if the advertising appropriation is judiciously used, it will be the very best investment that can be made. To discuss the relative merits of the various methods for obtaining publicity which can be used by the electrical merchant is not possible here but expert advice had best be sought in the matter. Circular letters, street car advertising, bill boards, newspapers, and other methods should all be carefully considered.

For the salaries of the office force, we assume an allowance of \$2,000 per annum, which should pay for a good bookkeeper and a competent stenographer. For light, \$300 has been set aside; for office expenses, such as stationery, postage, and other incidentals, \$500; for delivery and packing, \$500; and for insurance, \$100. We will allow the proprietor a salary of \$50 per week, or \$2,600 per year, which is not munificent but if he can make his business pay him a profit he can increase his income from this

source; if he cannot make the profit, he doesn't deserve a larger salary. This will give a total of \$4,400 annual expense, to which should be added the ten per cent for unanticipated incidentals, before mentioned, or \$1,440, and twenty per cent of the fixture investment for fixture depreciation, or \$300, which will give a grand annual overhead expense of \$16,140.

Now investigation will show that on the average, electrical merchandise which retails for \$50,000 can be bought at prime cost for \$30,000. If then, to this prime cost, the total overhead expense of \$16,140 be added, the total cost of the merchandise which sells for \$50,000 will be found to be \$46,140, leaving a net profit of \$3,860. Or as some prefer to figure, merchandise which costs \$30,000 and is to be retailed with an overhead expense of \$16,140, or approximately 55 per cent of the cost, should be sold at an approximate advance of 70 per cent over the prime cost, if a desirable profit is to be made. Some articles would not find any sale if this percentage were to be added to their prime cost; there is too much competition from articles serving a similar purpose operated by some energy other than electrical current; on the other hand, other articles will stand a gross profit of 100 per cent or even higher, but the average can be taken at 70 per cent over prime cost. Therefore, if the merchant can do a business of \$50,000 per annum and if he does keep his overhead expenses within the predetermined limits and if he insists that the margin of gross profit be sufficient to provide for his overhead and pay him a net profit, he will see his capital increase year by year.

In this article we have not touched upon the contracting and supply end of the business. If this be a part of the enterprise, a certain proportion of the proprietor's salary, the salary of the office force, the rent, light, and in fact a proportion of practically all of the overhead expenses would be properly chargeable to this branch of the business if it be run in conjunction with the retail merchandising.

Another question which the merchant must determine is what amount of his original capital must he invest in merchandise to give him a good stock and at the same time enable him to retain enough to meet his overhead expenses as they come due. This will largely depend on the season of the year in which he begins business. If a good season is approaching, such as Christmas, the stock should be as full as possible. The demand for household articles at that time is very heavy and a merchant is safe in ordering even more than he has the cash in hand to pay for. At certain other times, or between seasons, when business always slumps, it is better to have a small stock and a good bank account.

Offhand, it might be said that a business with an investment of \$1,500 in fixtures, \$5,000 in stock, and \$3,500 cash in bank is in a very healthy condition and prepared for almost any emergency; taking these figures as a good average condition, the merchant should try to increase his stock, which means a decrease in his bank account when a busy season is anticipated and when poor business is expected and arrives, it should find him with a big bank balance and no more stock on hand than is sufficient to meet his immediate needs. If possible to do so the merchant should take advantage of every cash discount offered. If he buys \$30,000 worth of merchandise in a year and discounts every bill at 2 per cent he is making \$600 in a year, which means a very tidy addition to his profits.

One other matter to which a merchant should pay particular heed is his relations with his bank. He should rigorously guard his business and moral reputation. If these are above reproach, he need never hesitate to seek accommodations from his bank for a bank would rather lend money to the business man with a clean reputation and small assets than to his more prosperous appearing neighbor with larger assets and a questionable reputation.

In planning such an enterprise everything naturally depends on the local situation and opportunity. The figures will vary in every case; but the ratio and balance as outlined here is that proven by the cumulative experience of the race of retail merchants and in launching the electric store you will do well to play to the rules and hold the natural hazard close to the safety point.

A School Installation In Victoria

In the domestic science department of the public schools in Victoria, B. C., 84 girls—future housekeepers—are receiving instruction in cooking by electricity, with an equipment of 25 disc stoves and an electric range. The school trustees are well pleased with the result of the innovation and "the children are boosters for everything electrical," to quote the words of Mr. S. J. Halls, manager of the light and power department for the British Columbia Electric Railway Company, Ltd.

"This installation was obtained," he says, "after satisfying the school trustees that the monthly charge for consumption would be approximately equivalent to the cost of fuel gas. We find that our rate of 5 cents per kWh. for this class of service compares very favorably with gas at \$1.75 per thousand feet, which is the local rate; and, as we have roughly 200 electric cooking installations, including one apartment house using 27 4,500-watt ranges, it was an easy matter to refer to any of these to prove the appliances were quite dependable and the rate satisfactory.

The school equipment is used for elementary and advanced cookery, and eighty-four girls are at the present time receiving

instruction. Parents have the privilege of visiting the classes each month to note the progress made, and are also allowed to take home the various articles cooked by their children. That the equipment has proved to be highly satisfactory is shown from the fact that the school authorities are contemplating putting in an electrically equipped household science room in their other schools, and, as for advertising the central station, it has been the means of many of the parents installing ranges and disc stoves in their own houses."

Here is an accessible opportunity that many central stations are apparently overlooking.



A Display that Sold Irons

LEO H. SANDERS
Com. Supt. Manchester Traction, Light & Power Co.,
Manchester, N. H.

In our flatiron campaign this spring, in addition to the usual house-to-house soliciting and newspaper advertising, we tried a simple but a very effective window display. Our entire stock of over 200 irons was built up in the window in the form of a pyramid, and as the irons were sold they were removed from the window. As the supply in the window decreased the demand for the irons increased, with the result that at the end of our one month's campaign over five hundred irons had been put out.

Susquehanna Company Reorganizes.

Announcement is made of the consolidation of the two holding companies, the Susquehanna Railway, Light and Power Co. and the United Gas & Electric Corporation, the combined organization retaining the latter name. The former officers of the Susquehanna company remain the executives of the greater United Gas & Electric Company, with offices at 40 Wall Street, New York City.



A range and 25 stoves are used daily in this school

"Guaranteed for All Time"

The American Electrical Heater Co., of Detroit, has gone the limit in expressing its confidence and responsibility in the sterling worth of its widely advertised "American Beauty" Iron, attaching to it a tag reading:

"GUARANTEED FOR ALL TIME"—This famous 'American Beauty' Electric Iron is warranted perfect and free from defect. Should the heating element prove defective at ANY TIME a new one will be given free, by your dealer or by us."

As a recent issue of *The Converter*, house organ of the H. C. Roberts Electric Supply Co., of Philadelphia, agents for the "American Beauty" iron, aptly expressed it, in discussing the new guarantee:

"A guarantee is like accident insurance; nobody ever expects to use it; nobody wants to use it; yet it is a very comfortable thing to have around the house. Nobody wants to buy goods that are going to fall down, no matter if they are covered by ten guarantees, but the presence of the guarantee is pretty good evidence that they won't fall down. It establishes confidence; that's what it's there for. And by the same token, if the goods are not worthy of the guarantee, the manufacturer 'goes broke.' Ergo: the better the guarantee, the easier the goods will sell.

"When the electric iron was first placed on the market, it was not the rugged tool that we sell today. There were many wrinkles in it, that were the source of occasional trouble. The manufacturers did not offer guarantee. With the American devices, though no definite term of guarantee was stipulated, trouble was invariably taken care of where it was not manifestly caused by abuse. You see, the public greeted electric appliances as the millennium in heating, and the use to which they were subjected was over-rigorous. The people didn't understand and the manufacturers had not provided sufficient protection.

"But with experience these devices became more and more 'fool-proof.' A one-year guarantee was given and later a two-year guarantee on some makes. The 'American Beauty' iron was not formally guaranteed until a little over a year ago. Years of experience and thousands of sales had then demonstrated that a guarantee would be but a formality, for the construction that has been developed, the element that had been evolved, has apparently reached a point close to perfection in quality and service. About a year ago, however, for its influence on the public mind, a guarantee for three years was given with every iron of that type.

"The year has been wonderfully successful. The 'American Beauty' iron has had tremendous sale and given a service that has brought no complaint. Test irons have been in circuit at the factory on a 25 per cent overload for over 8,000 hours and are still working without bad effects. With this justification, the manufacturers have prepared a new guarantee label for the American Beauty Iron that reads 'Guaranteed for All Time,' and it means what it says."

Thousands of dollars have been spent to advertise this electric iron to every household in every town. What more missionary sales assistance, what more market preparation, what more support could any central station or contractor ask?

Central Station Service in Rural Districts*

By GEO. D. SLAYMAKER
Eastern Michigan Edison Co., Detroit, Mich.



HE Eastern Michigan Edison Company operates in the territory immediately contiguous to Detroit. We serve twenty-five cities and villages. In addition, under the writer's personal observation, we have some fifty miles of distribution lines in farming territory. These lines are operated at 4,600 volts, three phase; transformers being supplied and installed free by the company together with service wires and meter. We have named these four the Avon Line, the Troy Line, the Royal Oak Line, and the Bloomfield Line.

All four of these lines, and indeed all other such lines owned by the company, were originally built as tie lines connecting various towns. The local distribution to the farmers along these lines was merely incidental and in response to their many pleas for service. This fact, however, has no bearing on the data which follows, inasmuch as it affects only the investment involved which, of course, for tie lines between urban or village communities, is much greater than the ordinary "farm line." The investment figure will not be touched upon in this paper, except to say in passing, that a "farm line" may cost anything from \$600 to \$2,000 a mile.

Avon Line

Average number lighting meters per mile.....	4
Average number power meters per mile.....	2
Average units per lighting meter per month.....	16
Average units per power meter per month.....	82
Average revenue per lighting meter per month.....	\$1.20
Average revenue per power meter per month.....	\$5.17

We now serve sixty per cent of the farmers on this line with light and twenty per cent with power. The prospects are good for greatly increased power business and an increase of perhaps twenty per cent in lighting.

Troy Line

Average number lighting meters per mile, less than.....	3
Average number power meters per mile.....	0
Average units per lighting meter per month.....	21
Average revenue per lighting meter per month.....	\$1.37

Thirty per cent of these farmers use electricity for lighting. There is one power meter in a ten-mile stretch. The future seems to predict perhaps double the number of lighting customers and (we hope) some increase in power.

Royal Oak Line

Average number of lighting meters per mile.....	8
Average number of power meters per mile.....	2
Average units per lighting meters per month.....	27.8
Average units per power meters per month.....	54
Average revenue per lighting meters per month.....	\$1.73
Average revenue per power meters per month.....	\$3.98

*Abstract of paper read before the National Electric Light Association in convention at Seattle.

All the farmers on this line now use electricity for lighting and twenty-five per cent also use it for power. Customers are being added very fast, due to the fact that farms of two to five acres are in great demand in this section. An increase in customers of seventy-five per cent in a year would not be an extravagant estimate. Moreover, it seems probable that every farmer will shortly be meeting all of his power requirements with electricity.

Bloomfield Line

Average number of lighting meters per mile.....	5
Average number of power meters per mile.....	2
Average units per lighting meters per month.....	55.5
Average units per power meters per month.....	92.7
Average revenue per lighting meters per month.....	\$3.08
Average revenue per power meters per month.....	\$4.86

All of the farmers on this line use electricity for lighting. Many use it also for cooking and power. We look for a very rosy future for this line inasmuch as it serves a great many country homes owned by wealthy Detroiters, who do not farm for a living, but apparently for fun.

The Avon and Troy Lines pass through ordinary farming country which, however, is more thickly settled than is usual in this State. The Royal Oak Line passes through a rapidly building district suburban to Detroit, and the Bloomfield Line passes through what is probably the finest country territory, electrically speaking, in the whole state. Therefore, the figures given, which are taken directly from our ledgers, may be conceded to be descriptive of conditions rather better than can ordinarily be expected. And yet observe that the possible customers on all of these lines average at five to eight to the mile. Obviously an average monthly revenue of even \$3.08 from each of five lighting meters and \$4.86 from each of two power meters in a mile (see "Bloomfield Line") will not go very far toward paying investment charges—let alone fixed charges and operating costs. And if our "best" line shows up so poorly the others are even in worse plight.

Therefore, we think it can be said without fear of successful contradiction that no line over three miles long, which is built for the sole purpose of serving the farmers and the cost of which the company bears, is economically possible. The difficulty lies in the question of *density* and the very fact that we are speaking of "farms" precludes any possibility of average densities of population much greater than in the instances cited.

We have concluded that a line built for rural service can be made to pay only in one of the following ways:

1. Make the customer pay part of the investment.
2. Raise your rates to farmers.
3. Build your lines to connect two or more centers of population of sufficient density to warrant the investment, and take the farm business as a side issue.

The first means very little country business, the loss of the friendliness and good will of the farmer, and bickerings over ownership, eventually.

The second means discrimination.

The third is not only feasible but makes this business practically "all velvet" as the only investment for the farmers is the transformers, the services, and the meters. Moreover, all of the power business on farms is off-peak business with a fairly good load factor and, with the lighting, returns a very good revenue per kilowatt-hour. And we should remember that this matter of the use of electricity on the farm has scarcely been touched as yet. With his limited experience, the writer would hesitate to prophesy lest he appear ridiculously optimistic; and yet as the farmer appreciates the convenience and cheapness of electricity remarkable developments are sure to come.

In conclusion, then, our company has found that the only solution to this problem is to make the rural business strictly incidental to urban business. Under these circumstances we find the rural business profitable. And we have the satisfaction of feeling that we are helping to bring prosperity and to make life easier for a great many farmers—which of course is the duty of all good Americans.

A Farmer's Estimate of Electricity*

By GEO. D. SLAYMAKER

About a mile south of Rochester in Avon Township, Oakland County, Michigan, is situated "The Cloverdale Holstein Dairy Farm," owned and managed by Dr. Robert Cassels. Two years ago the Eastern Michigan Edison Company built one of its 4,600-volt distribution lines past this farmer and his neighbors, most of whom proceeded to have their houses and barns wired and to use electricity for various purposes about the farm. Foremost among these consumers was Dr. Cassels. Scarcely had the current been turned on than he had his house and barns wired and had purchased a motor.

The motor was a five horsepower, three phase, 220 volt induction motor of 1,800 r.p.m. Dr. Cassels put the motor on skids, so as to be easily movable if necessary, and installed same in a shed centrally located among his farm buildings. It was belted to a jack shaft which protruded from the building, thus permitting the operation of machines which could not be conveniently operated indoors.

Dr. Cassels has used this motor for two years for grinding feed, cutting ensilage, husking corn, cutting wood, and pumping water. He proposes to install this summer, in addition, a corn sheller and an emery wheel. His farm contains fifty-three acres and Dr. Cassels, an expert veterinary surgeon and a man of education, has attacked his power problems in a common-sense way which deserves consideration.

In the first place, Dr. Cassels ascertained that the rate for power was four (4) cents per kwh., less 5 per cent discount for prompt payment, with a minimum bill of one dollar (\$1.00) per horsepower connected per month. In other words, his minimum bill for power was \$4.75 per month. He saw that he was entitled to 125 kwh. for this \$4.75 and proposed to get his money's worth. Consequently he informed himself about the reading of his meter and, month by month, kept close tab on his power, his output, and his costs. He planned his power operations in such a way as to consume, as nearly as possible, his 125 units per month and by using his head, has managed to do practically all of his power work at an average cost of \$5.48 per month for two years, his maxi-

mum bill being \$8.28. Moreover, by doing custom feed grinding and ensilage cutting for his neighbors, he has earned enough by his motor to pay a large part of his lighting and power bills. His motor cost him about \$75 installed and his old gasoline engine had cost him about \$150. Is it surprising that he is enthusiastic?—as shown in the following letter which was written in response to the question as to what his power was costing him. The writer has Dr. Cassels's permission to quote his letter here.

His letter is as follows:

"CLOVERDALE HOLSTEIN DAIRY FARM,
Rochester, Mich., June 2, 1912.

To the Eastern Michigan Edison Co.,
Rochester, Michigan.

It is with pleasure I submit to you a correct estimate of the cost of current for the operation of the following farm machine. The same being operated by myself with a five horsepower electric motor as my farm power equipment.

First:—

An International Feed Grinder, with an eight-inch grinding burr, run at 600 revolu-

tions, can grind one ton per hour of the heavy grains, such as shelled corn, barley, or wheat, and 1,200 pounds of oats. The cost of same is two and one-half cents per hundredweight.

Second:—

A No. 1 Whirlwind Ensilage Cutter with blower, having a cutting and elevating capacity of six (6) tons per hour which I have fully developed at a power expense of fifteen (15) cents per hour and run at 900 revolutions.

Third:—

A two roll Appleton Husker, through which I have husked 400 bushels of corn in ten hours at a cost of \$1.60. This machine is run at about 1,000 revolutions and is equipped with cutter head and blower.

Fourth:—

A Buzz-Saw which will handle 40 cords of wood in ten hours at a cost of five (5) cents per cord.

A pump which I run at a power cost of two (2) cents per hour. This pump has a capacity of seventy-two (72) gallons per hour. Yours very truly,

(Signed) Robert Cassels."



View showing coil section, rack, base, stew pan, frying pan, cord and plug.

The First Radiant Grill

The G-E Grill satisfies the public's demand for a portable, electric cooker that does *more* than one kind of cooking—and does it well.

Its many uses are so apparent to the customer; its open coils are so obviously the source of heat that it is unnecessary for the salesmen to "explain how it works." Hence it is sold quickly and easily.

For cool cooking in hot weather your customers will buy the G-E Grill—*when you bring it to their attention.*

General Electric Company

Principal Office: Schenectady, N. Y.

3722

The **Guarantee of
Excellence**



These facts, modestly and briefly stated, deserve some elaboration.

In the first place, please remember that Dr. Cassels is a practical farmer who manages an up-to-date Holstein Dairy farm and who has followed these costs for two years with scientific accuracy. His facts, as stated, can be verified by his books.

Let us look at his feed grinding. He says his five horsepower motor runs a feed grinder with an eight-inch burr, running at 600 r.p.m. and that it will grind one ton of shelled corn, barley, or wheat in an hour and 1,200 pounds of oats. And all at a cost of two and one-half cents per cwt. Moreover, Dr. Cassels tells me that he is confident that his motor will handle with equal facility a grinder with a ten-inch burr, inasmuch as when running his grinder up to its capacity with oats, his motor only develops three and three-quarters-horsepower per hour. Farmers please note.

With his little ensilage cutter he cuts and elevates six tons per hour and has filled his silo of eighty-five tons in two days. Last fall he filled this silo at a power cost of

exactly \$2.68, with power at four (4) cents per kwh. And with a five (5) horsepower motor! If he had hired a steam engine it would have cost him \$20. And please note, that by obliging his neighbors he makes this cutter pay part of his power and lighting bills.

With the same five horsepower motor he husks 400 bushels of corn in ten hours at a cost of \$1.60, his machine being a two-roll husker with cutter head and blower attached. This husker is rated by the manufacturers with respect to power, at "six horsepower gasoline motor." He tells me his electric motor handles it easily.

Dr. Cassels, at odd times, also runs a buzz-saw, which will saw four cords of wood an hour at five (5) cents per cord. Is that a saving to the farmer who drags his wood to town, pays the miller his price, and drags his cut wood home again?

Finally, he waters his stock and furnishes water for house service and barns at the rate of seventy-two gallons per hour and at a cost of two (2) cents per hour.

A Self-Supporting Iron Campaign That Sold 4500 Irons

By C. S. EMMERT
Commercial Dept., Colorado Springs Light, Heat and Power Co., Colorado Springs, Col.

From time to time we have been asked for information as to just how we were able to place electric irons with eight out of every ten of the consumers on the lines of the Colorado Springs Light, Heat & Power Company; and I accordingly take pleasure in outlining, for the benefit of other commercial men, the methods of our successful campaign during the months of June, July, August, and September, 1910 and 1911.

First of all, we selected what we considered the best iron on the market and determined upon the price. In this case it was \$4.50. Then the proportion of this



C. S. Emmert

amount which could be applied as the cost of selling was named as 75 cents. To the person in direct charge of the work (in this case the writer) 50 cents commission was allowed for each of his sales, while on all 50-cent sales by his assistants he drew 25 cents. Slips were then printed and bound in the form of small books, so worded that they can be used either for a cash sale, installment sale, or trial.

Before the campaign was started, a vacant room directly over our office was selected as the headquarters for this campaign, which we intended to be self-supporting and entirely independent of the Commercial Department, although I reported results thereto from day to day. Then the personnel of the selling force received careful attention. Part of the time we employed women and part of the time men, always selecting them from among the local residents and if possible, from responsible families, since it would be necessary to trust them to a considerable extent. Each morning as thorough a talk as possible was given to the sales force on the design of the iron we were selling as well as all other irons in the field, so that they could meet arguments and never "knock" the other irons. We coached them on how to approach the consumer and secure his attention, and how to get the prospect to take an iron on trial.

The force was divided into two teams of four each and two horses and buggies were hired. As the force worked these buggies were stationed as temporary stockrooms at two street corners, not far apart, and the salesmen would work back and forth from one wagon to the other. Not over two irons were carried by the salesman at one time, and the work was so laid out on the streets that no doubling was necessary or extra walking at any time. This arrangement allowed of no lost energy and kept the entire force within a reasonable distance. Each man in a sense was an independent unit, since at the end of the trial period of



Marketing Over Thirty Tons of G-E Electric Flatirons

The Commonwealth Edison Company of Chicago is now placing 10,000 G-E Flatirons in as many homes. These irons are sold on the free-trial, small-monthly-payment basis.

This result-getting local campaign takes full advantage of the interest and demand aroused in Chicago by the General Electric Company's continuous, national advertising in millions of copies of the best known magazines.

Companies in smaller cities can obtain equally gratifying results now by conducting similar campaigns.

General Electric Company
Principal Office: Schenectady, N. Y.

3687

The Guarantee of Excellence



on Goods
Electrical

fifteen days he was to cover his territory and either gather in his irons or close the deal. However, arrangements were made so that a part of each day, after the first fifteen, was spent on second calls by the force, thus keeping close tab on the work, as well as keeping the boys close together and in rivalry.

While the active campaign was conducted from June 1st to October 1st the first year preliminary work was begun in the early spring and continued as long as there was a sale in sight. The second month, our sales totalled 265, the highest number put out in any one day by one man being 30. At first the per cent returned was discouraging, about half refusing to pay even 50 cents down and 50 cents per month; but before the season closed, the effect of newspaper advertising and our work in the field became apparent. Then too, the irons themselves were so good as to meet all demands made upon them, and soon the neighbors began to help us advertise.

This same plan was followed a second season, with a grand total of 85 per cent of our residential meters having irons in use. Irons are still being sold, though now we find small necessity for a trial period or the installment plan. Our load curve is beginning to take on flesh in the hollows, and we mean to keep at it until "when looking at the line alone, daylight will look like the peak."

The total number of irons sold is approximately 4,500, with a meter list of 6,000, and considering the number of commercial meters, and customers who use gas for ironing, which business we do not care to bump, we consider this a remarkable record.

Report of the Committee on Electric Vehicles, N. E. L. A.*

COMMITTEE: L. R. WALLIS, Chairman; BERNARD LESTER, Secretary; A. W. CHILDS, M. EKSTROM, W. J. GRAMBS, ERNEST W. LUNN, P. D. WAGONER

In order to ascertain the development in electric vehicles, together with the conditions existing in various parts of the country a list of 20 questions was sent to the 150 central stations located in the largest cities in the United States. Returns comprising much valuable information were received from 67 companies. In a large number of instances it is evident that the central stations are doing nothing to promote the use of electric vehicles, and their use in such localities has increased in spite of this negative attitude rather than because of any active co-operation on the part of the electric light companies. In fact, a number of cases exist where a creditable number of machines are in use in cities where the companies themselves are making no use of them. Although it is generally supposed that electric vehicles can be used to advantage only in level sections, actual practise as indicated by the returns does not bear out this theory, as in some cases more electrics are used in rolling and hilly cities than in others of equal population where the roads are level.

Of the 67 companies reporting, 49 have in use 73 passenger and 371 commercial electrics, while 18 of the central stations use no electrics at all and yet, in the territory served by these 18 companies, there are 648 electrics in use by the public. This would indicate that in some, if not in most territories, the public appreciates the advantages of electric transportation to a greater degree than the central stations which are supply-

ing current for their operation. There are a total of 272 passenger and 100 commercial gasoline machines and 993 horses being used by the reporting companies, a large percentage of which will naturally be replaced by electrics in the near future. Within the territory represented by this report there are 11,044 passenger and 2,619 commercial electrics in service aside from those in use by the central stations. This is a very creditable showing considering the small amount of energy exerted in this direction up to the present time, but hardly a start when we realize the great possibilities in this direction and the benefits to be derived from a moderate amount of effort exerted in educating the public to an appreciation of the superior advantages of the electric.

Two of the companies have electric vehicle clubs or similar organizations for the purpose of stimulating the sale and use of



L. R. Wallis, Boston, Chairman of Committee

electric vehicles, while the remainder have exerted no organized efforts to bring about these results, although 10 companies co-operate to some extent with electric vehicle agents in offering machines for demonstrations, free current for signs, and certain classes of advertising, and 12 have automobile departments for the purpose of stimulating electric vehicle business and the sale of electric vehicles. The other 55 evidently have not given this much attention. Seven of the companies are agents for electric vehicles, while the remainder either have not interested themselves to this extent or consider it inadvisable to ally themselves with any particular manufacturer.

Twenty-five companies provide charging facilities either in their own stations or in the garages for the accommodation of electric machines in use by the public, while 31 co-operate in public or private garages for the establishment of charging apparatus. Within the territory covered by the 67 companies, there are 421 public electric charging stations, several cities having none, with one company claiming 67 connected to its lines.

A number of the public garages maintain a flat rate per month for the care and charging of electrics, while others charge a rate ranging from 10 cents down to 3 cents per kilowatt hour. The rates offered to public garages by the central stations also vary in different localities, many of which charge according to a sliding scale, depending on the demand and amount of current consumed. These rates range from a maximum of 10 cents down to 2 cents per kilowatt hour, while the rates offered for private charging are generally figured on the same basis, although it works out in most cases to be one or two cents per kilowatt hour in excess of that charged to public garages because of the smaller quantity used.

Twenty-three companies make a special rate for off-peak charging, while the remainder, although not offering special inducements for this class of use, assume that on account of the special nature of vehicle battery charging a large percentage of this would be done during off-peak hours. In 35 cities public garages make a flat rate per month for charging and garaging electric vehicles, eight charge on the kilowatt-hour basis, and five make use of both systems. The remainder do not specify. Twenty-seven companies do more or less newspaper advertising or issue circulars or electric vehicle literature for the purpose of educating the public along electric vehicle lines.

In answer to the request for suggestions as to best methods for popularizing electric vehicles in the various territories, many bits of advice were received. Eight companies suggested a reduction in the cost of the vehicles themselves, eight advised advertising, two suggested a lower rate for current, one advocated off-peak rate, four suggested the establishment of an Electric Vehicle Department; four, the use of electrics by the central stations themselves, with an offer to loan them for demonstrations; five favored co-operation with manufacturers; ten, the education of the public, and three, getting manufacturers to establish agencies. Other suggestions were educational campaigns, improved rates, and personal solicitation of prospects; commissions to agents on cars sold and the installation of public charging stations in convenient places.

In view of the excellent showing made in certain sections where the electric has been given a fair and impartial opportunity to demonstrate its superior advantages, and considering the increasing demand for modern methods of transportation and the satisfactory manner in which the electric has met and fulfilled these demands when selected for the work to be done and intelligently cared for; in view also of the attractive off-peak load which the charging of these vehicles presents, your committee recommends that central stations take an active interest in the introduction of electric vehicles in their respective territories, and, while making use of them in their own business with a view to determining the economy resulting from their use and their dependability, an educational campaign should be started for the purpose of impressing upon the public the possibilities of the electric, concerning which it is, with few exceptions, in profound ignorance. An Electric Vehicle Department should be established, or at least some one person should be designated to give as much time as necessary to exploiting this part of the business, for it is reasonable to assume that if the existing number of electrics has been installed in spite of general inactivity on the part of the central station, then with its help and intelligent guidance the days of the extreme load valley will soon be a thing of the past.

Your committee does not feel that it is practical to make a general recommendation regarding the matter of the central stations acting as agents for manufacturers. It is, however, of the opinion that the central station acting as an agent during the introductory period of the electric in its territory will be much more effective than any other agency. The central station should co-operate with electric vehicle agents in seeking for prospects, interviewing them, assisting in demonstrations, inspections, advice, etc. They would not, of course, express themselves freely upon such matters as relative quality, price, comparisons, or changes in design, as all this tends to confuse and lose an otherwise good prospect. To

*Abstract of paper read before the National Electric Light Association in convention at Seattle.

assist in the standardization of design and construction is of paramount importance.

In order to encourage the more general use of electrics, charging stations should be established in all territory supplied by central stations. These, preferably, should be installed in public garages, although it may be necessary, during the period of introduction, for the lighting companies to maintain such facilities at their own stations. In the larger territories these charging stations should be placed not more than ten miles apart and each town or village of any size should have an electric charging station of its own.

The matter of the rate to be charged a customer by a public garage is one which is hard to regulate, but the committee feels that a minimum charge to transients is inadvisable. The rate asked by the central stations for electric vehicle charging varies materially in different sections of the country, and it is impossible to make suggestions which will cover all cases, but because of the particularly attractive conditions existing in battery charging it is recommended that it be given the benefit of the off-peak feature, and that where existing rates do not meet the requirements of this class of service they be modified according to its lesser cost to the central station.

Newspaper advertising, circulars, and commercial advertisements should be intelligently used and in some cases public lectures should be given in order to break down the barrier of suspicion and ignorance which exists in the public mind and to educate the customer as to the possibilities of the electric vehicle for pleasure and business. A responsibility rests upon each company and no central station is so small that it can afford to neglect a current-consuming device which, if used to its limit, would not only make a wonderful change in the station load-factor without necessitating the installation of new station apparatus, but would make this latter worth while at an early period.

If central stations with their tremendous capacity and broad influence would stand behind the electric vehicle manufacturers by purchasing electrics for their own use and recommending them to the public, such an impetus would be given the industry that any advantage the gasoline manufacturers may possess due to their having secured at an early date a more general adoption of their product, would be overcome. The position of the electric manufacturers would become independent, and central stations would continue to receive their reward for years to come.



Something for the Cobbler

By G. F. PEASE

New-Business Mgr. Western States Gas & Electric Co., Eureka, Cal.

The sight of an oil stove in a shoe repairing shop where it was used to heat the buringishing irons suggested a new use for electric heat and led to putting an asbestos box closely covering an old G. E. electric toaster into service. Narrow openings were left in the side so the irons could be heated by being placed close to heating element.

The shoemaker is more than pleased and says he does not believe it costs him 25 cents per month to operate. Besides it heats his irons quicker and leaves them cleaner.

ANNOUNCEMENT

The National Electric Lamp Company and its subsidiary companies have been dissolved and merged with the General Electric Company. The business heretofore conducted by them will in the future be carried on by the following works which comprise the National Quality Lamp Division of the General Electric Company.

American Electric Lamp Works,
Central Falls, R. I.
Banner Electric Works,
Youngstown, Ohio
Boston Inc. Lamp Works,
Danvers, Mass.
Brilliant Electric Works,
Cleveland, Ohio
Bryan-Marsh Electric Works,
Central Falls, R. I.
Chicago, Ill.
The Buckeye Electric Works,
Cleveland, Ohio
Colonial Electric Works,
Warren, Ohio
The Columbia Inc. Lamp Works,
St. Louis, Mo.
The Economy Electric Works,
Warren, Ohio
Elux Miniature Lamp Works,
New York City
Federal Miniature Lamp Works,
Cleveland, Ohio
The Fostoria Inc. Lamp Works,
Fostoria, Ohio
General Inc. Lamp Works,
Cleveland, Ohio
Monarch Inc. Lamp Works,
Chicago, Ill.
Munder Electric Works,
Central Falls, R. I.
Chicago, Ill.
Nelite Works,
Cleveland, Ohio
Packard Lamp Works,
Warren, Ohio
The Peerless Lamp Works,
Warren, Ohio
Shelby Lamp Works,
Shelby, Ohio
Standard Electric Works,
Warren, Ohio
The Sterling Electric Lamp Works,
Warren, Ohio
Sunbeam Inc. Lamp Works,
Chicago, Ill.
New York City

Every effort will be made to maintain and improve the high standard of National Quality and the efficiency of National service which has always characterized the business formerly conducted by the National Electric Lamp Company and its subsidiary companies.

NATIONAL QUALITY  **LAMP DIVISION**
OF GENERAL ELECTRIC CO.

Cleveland.
SIXTH CITY.

Successful Booster Lighting In a Small Town

By E. G. ROBINSON

Manager, Jim Creek Water, Light & Power Co.,
Arlington, Wash.

The little town of Arlington at its last census showed a population of 1,576. The Jim Creek Water, Light & Power Company, owns the light and water franchises, and has been in possession since December, 1905.

We have a plant of 200 kw. water power, located about five miles from the town and as this plant was installed to take care of the growth of the town, the management of the company has taken the stand that it is right for the light and water company to take the burden of advertising and promoting the community. Moreover, we have considerable excess power, especially during the winter months when the nights are long, and having very nearly reached the limit of development in the town aside from its natural and normal growth, which has been healthy and steady without any booming, the writer conceived that by a small participation from each business house located along the main street we could make a very attractive showing towards the boosting of our little city and the development of bigger business for all.

The idea was to brighten up the town with a special lighting display and to secure as many electric sign installations as we could, in addition to those already in use. The idea for the street illumination was necessarily limited in scope, and we planned the

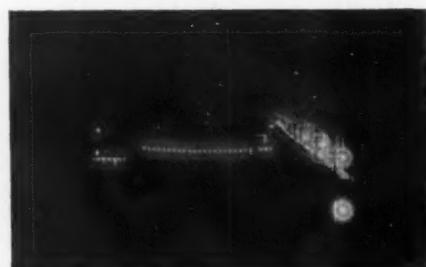


Booster effort in a town of 1600. The sign "Trade in Arlington" is on the railway depot

initial installation to consist of a string of lights along the front and south end of the railroad depot with a sign "Trade in Arlington," outlined in electric lights, as shown in one of the accompanying photographs. The string of lights then to extend from the depot to the main street, which is about two hundred feet away. The string then to run down the center of the street, being supported by span wires to the poles on each side. These lamps, as now installed, are 40-watt metallized filament lamps giving 16 cp., and are spaced every five feet, thus giving a very uniform and pleasing illumination on both sides of the main street, which is sixty feet wide. Down the center of the street is stretched a 3-16-inch galvanized iron cable. This cable is used to carry the weight of the weather-proof sockets and also is used as a neutral, the outside wires being 220 volts, thus enabling lighter wire to be used for the mains. The lights are connected alternately and burn from dusk until midnight.

The majority of the merchants and business men in the town were very enthusiastic over this lighting and assisted the manager in getting contracts from everyone along the main street. A few have not contributed and it is very apparent that they are the losers for the lights were not strung in front of their places, and the blank spaces are very bad advertising.

A monthly apportionment of \$1.25 per store front is contributed by these merchants, and the railroad company and both the brewery representatives in the town have contributed \$5 per month each, this bringing us in a total of about \$71 for the lighting. The entire cost of installation was \$310; total number of lights installed, including the station sign, is 450. We figured the maintenance would amount to about \$8.50 per month for renewals but up



How the Arlington lights lure you from the depot to the Main street and through the business district

to date it has averaged about \$5 per month. The lights were strung as completed on December 15th last. The transformer load was taken care of by some power transformers that we were compelled to install for our power load, and as the lighting load and the power load do not overlap, the cost of the transformers is not included in the cost of this lighting scheme.

The electric sign, as shown in the picture, is made from a piece of poultry netting stretched over a frame, the letters being outlined with galvanized iron and soldered to the wire. The lamps are mounted with sign receptacles, thus making a substantial sign that does not easily catch the wind and is also very cheap to construct.

The management has been complimented very highly on this plan for it has made the town of Arlington the talk of the entire section, and we feel that, although our income is comparatively small for the outlay, its advertising benefit to the town can not be reckoned as a small amount. The use of light in Arlington is quite lavish, as we have an almost entirely flat rate system, our plant at present being much larger than the town requires.

The Elgin (Ill.) Company Takes the Bit In Its Teeth

Many central station men have been discouraged and disheartened in their efforts to develop a market for electric vehicles by the lack of co-operation offered by the local garage interests. Many garage men figure

to them, and some central stations have taken this as a sign that the electric would not be a profitable enterprise.

General Manager Edwin C. Faber of the Aurora, Elgin, and Chicago Railroad, operating the central station out in Elgin, Ill., is not of that stamp of man. When he found his efforts to arouse enthusiasm among the garages unsuccessful, he took out an electric automobile agency in the name of his own company, with the result that a five-passenger electric brougham is now on exhibition in the company's show window and an active campaign for buyers is being conducted.

"In order to get this car into the show window," says Mr. Judson of the Elgin company, "it was necessary to remove the heavy piece of plate glass. Everything went nicely until the window had been set out on the sidewalk when a heavy gust of wind struck it and broke it into a thousand pieces, nearly maiming for life two of the workmen. The accompanying cut shows the automobile being run up into the window on planks.

"Every night the window show lights are turned out and the electric brougham lighted up with its own power. The rear wheels are elevated about a half-inch from the floor and revolve slowly from the current furnished by the battery. In the car every detail is carried out, even to the flowers in the glass vase. A wax figure of a 'dashing blond,' decorated with a large black hat with ostrich plumes, sits at the controller, while the crowd on the outside of the window looks on."

Some Electric Vehicle Statistics

We hear a great deal nowadays about under-production and over-consumption. A prime factor in bringing about the latter is the large number of horses used for haulage and transportation purposes, when the advent and efficient development of the motor truck would seem to indicate no real need for their presence.

The United States has a yearly hay yield of \$743,000,000; a corn crop totalling \$1,337,000,000 annually; and an oat crop valued at \$334,000,000 during the same period. The greater part of that hay and corn is fed to horses. Suppose acreage necessary to raise the hay were to be cultivated and sowed to grain, and the bulk of the present corn and oat crop devoted to its legitimate purpose—the sustenance of the human race—the present economic difficulty of high prices and under-supply would be, to a great extent, remedied.

The advent of the electric truck has made this condition not so visionary as it seems. The percentage of shrinkage in horse-drawn vehicles in Chicago during the past year amounted to 15.7 per cent for one horse wagons and 13.5 per cent for two-horse wagons. The aggregate shrinkage is 14.7 per cent for the year. Altogether, 6,753 horse-drawn vehicles were discarded in Chicago between May 1, 1911, and May 1, 1912. Since an electric truck handles tonnage equivalent to that of three two-horse wagons, the saving in time, money, and congestion of traffic becomes truly tremendous.

The average life of an electric truck, based on actual records, is at least 10 years, with a consequent depreciation charge of 10 per cent yearly. The average city work life of even the best Percheron draft horse is only 4 years, the depreciation consequently higher—25 per cent.

All of which will furnish data for some mighty interesting figuring to the man who is worried about how to successfully combat the deadly certainty of depreciation charges in his business.



Getting the car into the Elgin window

that they can secure more profit through the repairs that come with the care of a gasoline car and prefer to devote their space

ELECTRICAL MERCHANDISE

AND

SELLING ELECTRICITY

AUGUST, 1912

SOMETHING BETTER THAN SOCIALISM

With no thought of campaigning for the Democratic party, we recommend to those central station men who are losing sleep over the present industrial unrest, the progress of conversational and actual anarchy and the revitalization of the municipal ownership idea, the following quotation from a speech of Woodrow Wilson:

"If you want to oust Socialism you have got to propose something better... You cannot oppose hopeful programmes by negations."

Translated into the vernacular, this means that it is time to quit playing 'possum—time to shed the gum shoes—time to renig on the assumption that power is a gift of the gods and poverty a crime—time to offer something better than we have today and better than the air castles and anarchy which is raising hob with our business without bettering the conditions of the people at large. The day for smiling indulgently at the sophistries of Socialism and for sneering at the bathless and bewhiskered advocates of universal brotherhood is a long way past. Past also are the days for cursing and coercion. We have got to propose something better.

That "something better" is at hand. One group of men is already trying it. The rest of us would do very well to watch closely the result.

It is a mighty simple remedy. In ten words it is this: "Instead of pauperizing the rich, why not enrich the poor?"

How? Well, here is the plan in the rough as it has been adopted by one of the great electrical interests:

The present-day incentive to thrift is insufficient and the incentive to extravagance is abnormal. We cannot overcome extravagance without greatly increasing the incentive to thrift. The savings bank .4 per cent has little attraction. We have all learned that a dollar so invested increases at worse than a snail's pace. But how about 6 per cent, or 7 per cent? If we take any amount and compound the interest at the latter figure, we are amazed at the results. Our money practically doubles in

ten years, at the latter figure. Such an unearned increment—we believe that is what the Socialists call it—begins to look interesting.

Then there is another point: men who have money have ways of making money fast. They buy cheap and sell dear. They do this by increasing values, the increase so secured being the result of shrewd judgment, scientific management, creative development. Small business fails because it has not specialized brains at the head of each department. Big business commands such brains and employs them most economically by spreading them over large operations. A moribund lighting company, for example, when taken over by a progressive syndicate, increases both gross and net earnings at a remarkable rate. This is because the syndicate can and does hire better managers, more skillful engineers, more experienced commercial men. And the men behind those syndicates double their money quickly, or treble or quadruple it, simply through the employment of shrewd management and by virtue of their creative work in developing dormant opportunities.

So this plan we speak of contemplates a popular participation in such created riches; in addition to a larger rate of interest on savings, the small investor is given his share of the quick profits. He cannot, however, enjoy this quick profit without taking advantage of the saving feature. He is not allowed to enjoy the cream alone—he must take the milk also. But by the plan proposed, the milk he gets (if we may continue the simile) contains a goodly proportion of cream. It is not, as heretofore, "skim milk."

That is the whole plan—a sufficient incentive to save and an opportunity to invest those savings at rates which promise so much more than any ordinarily available investment that the man who would neglect the opportunity is deserving of the poverty which he courts.

The plan was worked out first with a group of managers and department heads—men of good general business training and incomes sufficient to enable them to accept the opportunity in a fairly large way. After careful consideration, it was next offered to salesmen and clerks—men to whom the laying aside of a few dollars every month is not a great matter. Finally, it will be offered to factory operatives—men who must count every nickel. So carefully has the plan been drawn that from the investment of hundreds in the first group, it is succeeding when the investment is tens, and will gradually work down to where an operative or laborer may lay aside a single nickel out of each week's pay. In all cases, the opportunity is the same. The general manager with a half-million in his own right and the laborer with a half-dollar each has equal rights and an equal percentage of profit.

The idea, of course, is not new. Profit-sharing of one sort or another has been tried

with greater or less success. But this is something more than profit-sharing. The organization which is offering the plan to its employees is not asking them to invest in their own business. They are carrying the investment outside, diversifying it to an extent where it is as safe as any such operation can be, and they are making of these employees not partners but capitalists.

And that is the whole nubbin of the plan—to make capitalists out of the common people. A few years ago, the only bonds anybody wanted were in thousand-dollar denominations. What chance had the nine-dollar-a-week laborer of owning such? A few years ago, also, the real profits in any capitalization were taken by the men "on the inside." What inducement had the laborer or clerk or even the well-paid executive to accept a mere savings-bank interest?

But by this plan, the least employee can participate. A nickel makes him a capitalist. Certainly, this is "something better than Socialism."

THOSE STANDARD SHEETS.

Another central station man has written to us to urge the necessity for standard manufacturers' catalogue sheets, that the central station salesman may be relieved of the baffling diversity and multiplicity of manufacturers' bulletins and catalogues. He again cites the fact that his gas salesmen are far better provided for in their standard sheets on gas appliances than the electric salesmen and that in consequence they make a much better impression on the customer.

Through the activities of the Commercial Gas Association, the gas man has been systematically equipped for the firing line. He has his whole array of ammunition in an orderly, consistent form that is essentially businesslike and indicative of thorough preparation.

His data is in one book at all times available with the maximum suggestive value.

The man who sells electricity and electric current-consuming apparatus must either prepare his own universal handbook, or he must carry about with him a mass of miscellaneous literature that is exceedingly amateurish in appearance and a distinct handicap when the argument waxeth hot. When will the manufacturers of electric current-consuming appliances and accessories get together and provide us with standard data sheets that will give every salesman the whole kit of tools?

What is the answer? It is an opportunity that these manufacturers should not longer neglect. It will mean more apparatus sold, undoubtedly, for that has been the experience in the gas field. And it will unquestionably mean many dollars saved on fancy printing.



Tennis By Night

A New Central Station Opportunity

At the Lakewood Tennis Club, just outside of Cleveland, Ohio, a tournament has just been held for the championship of "Cleveland night-playing." The leading players of practically all the big clubs of the vicinity were entered and pronounced this first serious trial of night-playing an unqualified success. The innovation is well worth the interested attention of the central station.

The accompanying pictures were reproduced from day and night photographs taken on the courts of the Riverside Tennis Club of Niagara Falls, and show how effective is the new system of tennis court lighting recently evolved by the Buckeye Electric Works of the General Electric Company, manufacturers of incandescent lamps in Cleveland. It unquestionably opens up a promising field for the upbuilding of a profitable summer business, through making tennis playing possible for men and women who cannot find time for exercise during the daylight hours.

Efforts to illuminate tennis courts, and play at night, are almost as old as the game itself. One of the first schemes tried was a strong light at each of the four corners of the court. This was a failure. There were too many shadows—the players were constantly becoming confused by the glare from lights and court, and the center of the court was darkest.

The next plan tried was hanging rows of arc lamps over the net and over the back lines. The lamps, of course, interfered with play, and the glare in the eyes was bad. The shadows made the ball difficult to see, and there was no diffusion of light.

Then the experts reasoned that by hanging two arc lamps over each back line, and one over each of the four service courts, success would crown their efforts. The result was another failure. The glare and the shadows were still present.

More recently another plan was tried. A long trough reflector was hung down each side of the court, and thickly studded with incandescent lamps. An improvement was noted, but results were still far from satisfactory. Diffusion was poor, and shadows were plentiful.

Some of the experimenters, in order to secure contrast, have gone to the extreme of using a special whitened court, with black lines, and black net and balls. This has improved conditions, at the expense of

ruining the court for day play, as well as making it difficult for a player to become accustomed to the radical change in conditions from day play.

By the Buckeye system the absolute elimination of shadows is attained.

It is just as easy to follow the ball as in the daytime, lobs fifty feet high are clearly visible, there is no difficulty returning swift shots or in volleying, or in "overhead" work. The lights are placed at the sides of the court, and so arranged that they brilliantly illuminate an area a few feet larger each way than the dimensions of the court itself, with a diminishing illumination extending fully 100 feet in each direction,

according to the number of courts equipped and the range of the contractor's price for wiring. The cost of current is but a few cents per hour. At one club a charge of 40 cents per hour is made for night playing—10 cents a player in doubles—to cover light and contribute towards the cost of equipment. The lamps are protected by guards and cannot be struck by balls. The installation is strong and permanent, and proof against wind, rain, and winter. The Buckeye Works will furnish plans and specifications to insure the success of any installation without charge.

The opportunity for the central station and contractor is obvious. There are tennis



A Niagara Falls tennis court at night—note the absence of shadows

thus preventing lost balls. The player immediately finds that in playing on the lighted courts for the first time there is nothing to become accustomed to, that conditions are the same as for daytime playing.

In striking contrast to playing tennis by day, there is no glare in the eyes. In the bright sunlight, a clay court reflects the light in a dazzling manner. The player who is forced to face the sun works under a tremendous disadvantage. In playing at night there is no choice of courts—both sides are alike, and playing conditions for the opposing players are absolutely identical.

As to construction, metal angle reflectors are used, as shown in the illustration, and it has been found that the cost of installation varies from \$130 to \$175 per court,

clubs in every community. There would be many more if time for daylight playing were available to countless lovers of the sport, whose work is too exacting to permit of consistent playing. Tennis by night will solve the problem.

"Annual Benefit" for Officers

The annual dinner given by the sales department of the Edison Electric Illuminating Co., of Brooklyn, to the officers of the company was held on the evening of July 2d. The invitation describes it as:

"Annual Benefit given by the 'Peripatetic Perambulators' of the sales department to the overworked and underpaid general officers."

Also this invitation is as clever a piece of mirth-on-paper as is seen in a year. He who reads it regrets 'way down deep that he did not "belong."

The list of "postprandial participants" is a good index to the informal fun that followed the food. It reads as follows:

H. P. Erwin:—

"I know all laws but the marriage law."

J. F. Becker:—

"How I put it over in New York"—or,
"The bigger the town, the bigger the bull."

P. R. Atkinson:—

"How I took a lady's alimony to pay her deposit."

F. W. Smith:—

"I once was young and innocent,
Alas, I fell from grace;
I moved away from Brooklyn,
You can see it in my face."

W. F. Wells:—

"How a kilowatt cares for its young."

W. J. Ray:—

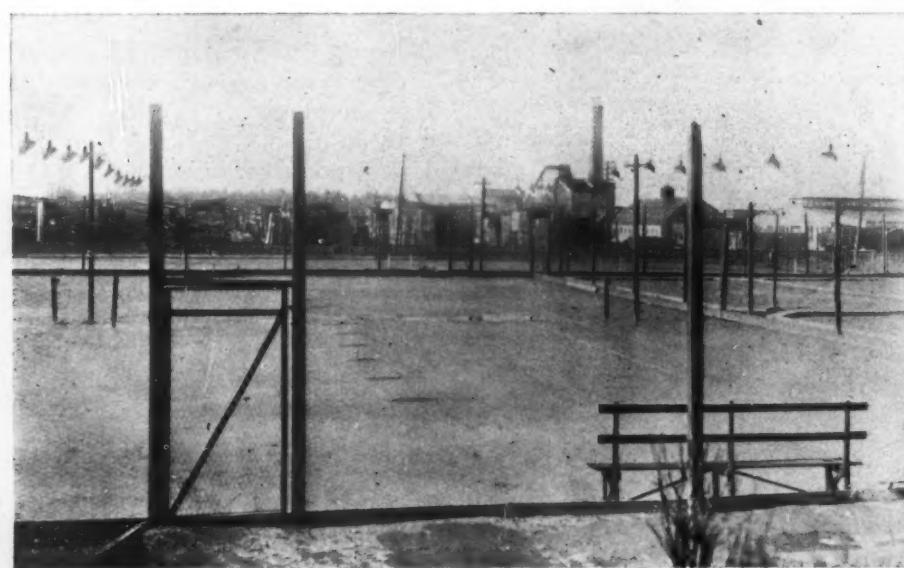
"The female of the species is more deadly than the male."

T. I. Jones:—

"How I do it—(Pls. C me)"

W. W. Freeman:—

"How to boss a Central Station menagerie."



The new system of tennis court lighting which has provided a new sport

GET PROGRESS

INTO YOUR SYSTEM

Sales System

Advertising System

Electrical Progress has been published about a year and a half now. It is issued every two or three months on some timely subject—a 16-page handsomely illustrated magazine, $6\frac{1}{2}$ by $9\frac{1}{2}$ inches and written the way you want *your* salesmen to talk to *your* prospects.

We Are Not Asking You to Try a New Thing

Our Customers include the most energetic and successful Central Station Sales Organizations and *they* have proved that Electrical Progress brings business.

Here Are Some of Our Customers:

Big Cities

Denver, Colo.
St. Louis, Mo.
Boston, Mass.

Minneapolis, Minn.
Los Angeles, Cal.
Pub. Serv. Corp. of New Jersey

Philadelphia, Pa.
Baltimore, Md.
Pittsburg, Pa.

The lighting companies in these cities alone have distributed 165,000 copies.

Medium Sized Cities

Decatur, Ill.
Nashua, N. H.
Joplin, Mo.

So. Bend, Ind.
Cedar Rapids, Iowa
Colorado Springs, Colo.

Montgomery, Ala.
Lancaster, Pa.
Muskogee, Okla.

The lighting companies in these cities alone have distributed 67,000 copies.

Small Cities

Dover, N. H.
Meridian, Miss.
Marshall, Texas.

Fort Smith, Ark.
Windsor Locks, Conn.
Arkansas City, Kan.

Warren, Ohio
Leavenworth, Kan.
Mt. Washington, Md.

The lighting companies in these cities alone have distributed 26,000 copies.

The above are typical of the 200-odd cities all over the country where Electrical Progress has been used. We have Electric Sign Numbers, Electric Vehicle Numbers, Home Equipment Numbers, Ornamental Street Lighting Numbers. Send us 10 cents in stamps for a set of sample copies—NOW—and get ready for the Fall Business.

TO REGULAR PURCHASERS—The Fall issue on *Residence Lighting* will be “sent to press” about the time this reaches you. It is a sheaf of arguments on the advantage of electric lighting, cooking, and service. It tells how easily old homes are wired. It tells how safe, convenient, and cheap it is. It makes ‘em want electricity. This will be a standard 16-page issue costing 2 cents per copy to companies having yearly contracts for 10,000, $2\frac{1}{2}$ cents on 5000 contracts and $3\frac{1}{2}$ cents on 1000 contracts.

**If You Want Your Share of the First 50,000 Please Send
Shipping Instructions at Once**

THE RAE COMPANY

17 Madison Avenue, New York



There is hardly a merchant now-a-days who can not save money on his day's work by the use of a

Peerless Motor

Have you ever made a list of all the butchers, grocers, bakers and other small motor opportunities in your town and *gone after them?* Do it now while the heat makes muscle work a curse. We are ready to give you all the data and all the practical assistance you need.

Peerless Motors
will help you get the business and hold it.

Both D. C. and A. C. Motors to 1 H. P. Inclusive

We make D. C. motors to 30 H. P. designed for any class of service. Consult our engineering department.

Address Motor Department

Fan, Motors, Exhaust Fans, Rotary Converters, Generators

The Peerless Electric Co.
Warren, Ohio
Agencies in all Principal Cities

Electric Signs as the Advance Agent

A Little Sign News from Muskogee, Okla.—An Idea Worth Adopting

We have grown to look for enterprise from the far west, and it takes a pretty speedy piece of work nowadays to excite our surprise. Here is a new evidence of the alertness of the western central station commercial man, however, that is well worth emulation wherever there are signs for sale. Mr. Norman B. Hickox, manager of the



This sign was up before the plaster was on the building

new-business department for the Muskogee Gas and Electric Company, exhibits the photographs reproduced below to show the way they have in that city when on the hunt for sign business. Mr. Hickox's contention is that a merchant loses a good part of the value of his sign if he neglects to use it as an advance agent when opening up his business or going into a new building. Consequently Mr. Hickox, as the pictures show, gets his signs in action as soon as there is enough of the building above ground to hang a sign on and the unusual effect of this impatient publicity is of inestimable worth to the merchant.

The "Gaiety Theatre" sign was in operation when the picture was taken although the plaster was not yet on the walls. The "Severs Hotel" sign has been burning some time, though the house will not be open for



This sign was burning months before the building was completed

business until September first. There have been a number of other signs installed as advance advertising in the same way.

The "New Phoenix" sign, installed last month, is said to be the largest electric dis-

play southwest of St. Louis and proves that Muskogee is as enterprising when it comes to sign size as in their rapid-fire qualities. The sign was erected by the New Phoenix Clothing Co., who occupy the lower floors of the building. It is the representation of a sky rocket, the rocket appearing to start somewhere behind the building, curving over the letters "New Phoenix," and bursting at the cornice, showering stars down the side of the building and ending at the top of the large vertical sign reading "Clothing." There are three shots of the rocket, the first bursting into red stars, and showers, the second white and the last green. The flashing device is so arranged that there is one instant when all lamps are lighted and six seconds when the entire sign is dark.

The sign structure is 50 feet wide, 40 feet above the roof and 42 feet below the roof. The words "New Phoenix" are in five-foot letters and "Clothing" in 30-inch letters. The showers are 35 feet long and the vertical sign 28 feet long. The entire display is double face, containing 2,618 four-candle-power Mazda, 11-volt lamps, in addition to which there are approximately 1,500 color caps for the red and green effects.

An event was made of the first lighting of the sign. Following an hour's concert by



Fireworks display on the night the sign was first lighted

a band there was a large display of fireworks from the roof of the building, as the picture shows, after which the proprietor of the New Phoenix Clothing Company pressed the switch which put the sign into operation. The celebration was attended by a crowd of 6,000 people and was voted a big success.

The sign was designed and sold by Mr. Hickox and built by the Greenwood Advertising Company, of Knoxville, Tennessee.

The electrical equipment is a noteworthy example of the modern applications of central service and a strong testimonial to the enterprise of the Muskogee Company. The building contains 49 horsepower in motors operating 2 elevators, vacuum pump, water lift pump, ice water pump, sump pump, cash carrier, and vacuum cleaner. There is in addition a lighting load of 62,910 watts demand. General Electric Mazda lamps are used.

Ten Thousand Flatirons on Trial

How the Commonwealth Edison Co. is Campaigning for Iron Business this Summer

The Commonwealth Edison Company of Chicago has just bought 10,000 flatirons. To place over 30 tons of electric flatirons in thousands of homes is no small problem, but it is being done successfully there and the methods used can be followed with profit by all smaller companies confronted with the difficulty of quickly marketing electric heating devices.

An attractively designed folder, entitled "A Pressing Need," is mailed to the customer. It reads—

"Try this latest improved electric iron in your home—free for thirty days. If it does the work as we claim it will—to your entire satisfaction—it is yours at cost price—time payments, if preferred. If you desire to keep the iron, a bill will be mailed to you."

To the folder is attached a post card which the prospective user signs and mails to the company and an iron is then delivered at once. But not all the people who receive the folder will mail the card; therefore, in order that no possible customer may be overlooked, a delivery wagon calls at each house the day following the mailing of the circular. Iron in hand, the company's representative tells the matron that, if she desires, the iron will be left and can be paid for at the rate of \$1 a month. Or, if she prefers a thirty-days' trial she then signs the post card and the iron is left.

Several features of the folder deserve mention. The iron is the General Electric Co. brand, now being extensively advertised in the popular magazines, and to link up this publicity, the illustration of the iron on the folder is the same as that used in the manufacturer's magazine advertisements. The iron is guaranteed and attention is called to the guarantee tag which is also prominently featured in the manufacturer's advertising. In this way the Commonwealth Edison Company is turning into sales the interest or desire aroused by the manufacturer's magazine advertising.

At the same time the Commonwealth Edison Company is using a series of stereopticon slides in motion picture theatres throughout the city. These slides either show graphically or tell tersely the advantages of electric irons.

A New Use for the Vacuum Cleaner

The Berger Manufacturing Company, of Minneapolis, has received an interesting letter from a customer in Moose Jaw, Saskatchewan, Canada, who recently invested in an electric vacuum cleaner. He writes:

"My house is not yet completed, and accordingly, we have not tried it on carpets and rugs, but we have found it very useful in that in about two hours it took every fly out of the house. The carpenters had left the windows and doors open, which allowed thousands of flies to collect in the house, and it was almost impossible to get them out without spoiling the decorations and wood finish. The vacuum cleaner, however, came to our rescue, and did the job perfectly. An odd spider which we found huddled in the order of the walls was also taken out without leaving any disagreeable marks on the walls."

The Desirability as a Central-Station Load of Pumping for Municipally Owned Water-Works

Abstract of a Paper Read Before the N. E. L. A. Seattle Convention, in General Session.

BY CHARLES A. MUNROE

A large and profitable source of income is available to the central stations from the pumping of water at municipally owned water-works. The number of kilowatt-hours which would yearly be employed in pumping if these water-works were operated by central-station power is very large.

A population of more than 40,000,000 is furnished from municipally owned water-works. A conservative estimate of the amount of water used per day per capita is 40 gallons. A fair average of the energy required to handle 1,000 gallons of water is one and one-half kilowatt-hours. An average price for the current would be two cents per kilowatt-hour. The central stations of the country will, if they secure this business sell per year 744,000,000 kilowatt-hours, yielding gross earnings of \$14,880,000. The desire of every central station is not only to sell a large number of kilowatt-hours, but to sell as large a number as possible off the station peak.

The pumping of city water is peculiarly adapted to fit in with the capacity of a central station. By the installation of an elevated reservoir, which if not already in, should be in, it is possible to make the pumping of water by electrical energy practically automatic. The small space required by the electrically driven pumps enables us to install our units without enlarging the existing plant, so that the present plant of a municipality can stand by as a reserve. In addition to the automatic features of operation, the load required for municipal pumping can be dropped on the station peak without inconvenience to the municipality.

Where the water is pumped from deep wells, it should first be pumped into a surface reservoir and then into a stand-pipe. This decreases the head against which the deep-well pump has to operate, and in case of fire gives a large supply of water on the surface which can be thrown direct into the mains with a centrifugal pump installed for this purpose. This large pump can be operated economically at the distributing voltage without the expense of, and losses from, transformers.

In small towns the stand-pipe will take care of any ordinary fire and the expense of a surface reservoir can be avoided. In every instance, however, where the water is more than 60 feet below the surface of the ground, there should be a reservoir in order to avoid the strain on the deep-well pumps.

Contracts should not be made at a flat rate per thousand gallons of water pumped, unless the source of supply is a lake or river. If the municipal water supply is derived from deep wells and the contract is based upon a fixed price per thousand gallons of water pumped, serious complications may arise.

First: Pumping the water for a fixed price per thousand gallons presupposes that the central station will do the pumping. This involves making repairs, which on deep-well pumps are apt to be very costly.

Second: The central station becomes responsible for the successful operation of the pumps and apparatus in case of fire.

Third: If the wells give out, which is almost always the case, there is the added embarrassment of trying to get the municipality to sink a new well, or, if the level lowers materially, the hardship of pumping

the water against the greater head falls on the central station.

It is easier to close a contract on the basis of a flat rate per thousand gallons of water pumped than on a kilowatt-hour basis, because the city officials do not understand the value of a kilowatt-hour, whereas a proposition to pump water at, for example, five cents per one thousand gallons is understood and considered cheap, water being sold usually at from ten to fifteen cents per one thousand gallons. It is, nevertheless, worth the added effort to secure the contract on a per kilowatt-hour basis. On this basis you have known conditions on which to figure. A very low price per kilowatt-hour is justified because of the off-peak character of the load.

In municipal pumping plants, because of the comparatively small amount of power used, the attendance charge is high per kilowatt-hour. In some instances this charge is equal to the total charge per kilowatt-hour by the central station. Two and one-half cents per kilowatt-hour for this

THE NEW QUAD

It Boils

It Fries

It Bakes

It Roasts

Just like a coal stove—except perhaps a little quicker. Makes tea and coffee in the usual pot.

Uses an ordinary frying pan for ham and eggs, fish, etc., and a deep pan for doughnuts or croquettes.

The semi-ventilated oven makes delicious cake, biscuit and bread visibly.

Roast Beef, browned outside and rare inside, and other meats perfectly cooked.

A Fireless Cooker that works on 27 KW minimum per month per residence.—A Lamp Socket Load.

The lining is Aluminum.

The Element 600 Watts guaranteed for 2 years.

New Booklet Now Ready for Mailing

**The A. L. Sykes
Manufacturing Co.
Cincinnati, Ohio**

"National Quality"



Colonial *Mazda*

"Colonial Service"

COLONIAL
ELECTRIC WORKS
OF GENERAL ELECTRIC CO.

WARREN, OHIO

business in towns under 10,000 people will result in a marked saving to the city.

More important to the central station than the getting or losing of any one particular piece of business, is the occupancy of the territory without municipal competition. Where a municipality has a water-works station and men on duty all the time, it is natural for someone who knows only half of the story to suggest that by purchasing a generator to be belted to the prime mover in the water-works station, and a few poles, cross-arms, wire, etc., the city can furnish its own street lights at a great saving. The suggestion we all know is a fallacy, but sometimes difficult to prove, especially if it gets to be a political issue. If a city can be persuaded to equip itself for furnishing its own street lights, it will not be difficult to get it to go one step further—namely, to distribute energy to private consumers.

Here is a class of business which from an economic point belongs to the central station, because the central station can pump the water at a price which will save money to the municipality and make money for itself. If this business is gone after in an aggressive way before it becomes a political issue, it should be secured without difficulty.

With the city pumping plant shut down and operated from central-station company's service, a source of possible trouble is eliminated, and the saving made for the city creates friends for the central station.

New Offices in Beloit.

The Beloit (Wis.) Water, Gas & Electric Co. has just taken possession of a new suite of offices, in which equipment for an attractive display room has been installed. The commercial department under Mr. C. B. Hillsbury is planning an aggressive campaign to begin in the fall.

Further Improvements in Holophane

A new standard line of high efficiency reflectors will be offered shortly by the Nelite Works of General Electric Company.

The new line will be known under the trade name of "Xtraeficiency" and will not only be of considerably greater efficiency than present standard line Holophane reflectors, but will actually be the most efficient lighting glassware in the world. Electrical Testing Laboratories, photometric tests will be offered to substantiate this statement. In announcing the new line, Mr. W. F. Minor, in charge of the efficiency glassware sales of the Nelite Works, said:

"Now that we are in position to sell every type of illuminating glassware, we realize the distinct position of each type. At one time the industry undoubtedly lost its head over Holophane—that is to say, the efficiency and ease of installation of our product was such that Holophane glass was frequently used in places where another type of glassware might have served to better advantage. The natural result of this over-enthusiasm for high-efficiency glass led in time to an equally erroneous prejudice in favor of opal glass, so that today we see many installations equipped with our own opal or others which might better have been equipped with Holophane."

"The new 'Xtraeficiency' line of Holophane glassware will help to define the proper place for each class of equipment. Where efficiency is the chief consideration, Holophane is without doubt the proper equipment. As decorative necessity or architectural restrictions call for more decorative glassware the opals find a natural place. I think that in future we will not see prejudice in favor of any particular type of lighting equipment carried to the lengths it has been in the past, and that the glassware selected for each installation will be selected

with view to the exact requirements of the case and not in accordance with the ready-made arguments of the man making the installation."

The new "Xtraeficiency" line will be offered the latter part of July or the first of August in ample time for the industry to use it on Fall installation work.

"Pueblo Has a White Way"

This picture of a night throng on the main street of Pueblo, Col., shows how great was the public interest in a "White Way" system of street light recently installed there. The newspapers stated that 10,000 people participated in the celebration.

The installation consisted of 46 five-light standard Corinthian type, manufac-



tured by the Flour City Ornamental Iron Works of Minneapolis, the cost of the installation being borne by the abutting property owners and service rendered by the Arkansas Valley Railway Light & Power Company under contract with the municipality.

Mr. T. A. Duke, commissioner of lighting parks and water, was largely responsible for bringing about this installation, Mr. Duke being a street-lighting enthusiast. Mr. T. D. Donnelly, who made the speech on street lighting on the opening night, is the mayor of the city. The celebration was very successful and the newspapers gave the occasion a great deal of space.

Georgia Convention.

The Annual Convention of the Georgia Section of the National Electric Light Association will be held at Hotel Tybee, Tybee Island, Georgia, August 15th, 16th, and 17th, 1912. Mr. William Rawson Collier, of Atlanta, is president.



A New Use for an Old Device

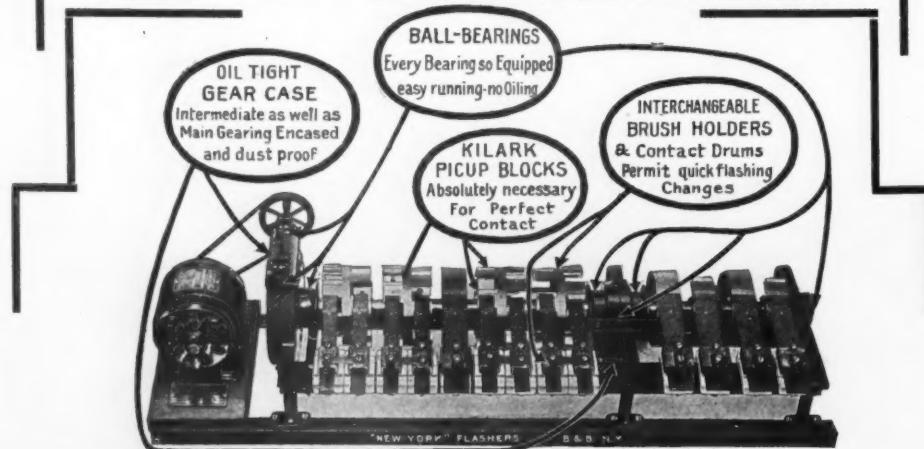
By L. J. WILHAITE
Contract Agt. Chattanooga Railway & Light Co.,
Chattanooga, Tenn.

We have discovered a new application for an electric flatiron that will probably be of interest.

A local photographer was searching about for a quick and efficient way to dry photographic post-card prints, and we suggested the use of an 8-lb. electric flatiron. This suggestion resulting in the purchase of an iron and great satisfaction to the customer. The iron takes the place of the ordinary photographic dryer by pressing the cards between two blotters.

No. 3 FLASHERS VS. CENTRAL STATIONS

Mr. New Business Man, Do You Realize That a "Fagged Out"—Unreliable Flasher Will Do More to Injure Your Sign Business Than a Poor Sign?



New York Flashers

Stations who will tell you why they changed.

Results, Not Claims, Count

Made by the makers of **COLOR CAPS.**

BETTS & BETTS

Largest Manufacturers of Flashers and Electric Sign Specialties in the World.

254 W. 55TH STREET, NEW YORK, U. S. A.



On the Subway

Code Word, "Bettsonia", W. V. Lieber's and Private Codes Used.



STYLE B

Color-Changing Reflectors*A New Stunt in Billboard Illumination*

Only within recent years has the outdoor advertiser begun to realize that night advertising is more remunerative than day. Painted or poster bulletins or walls or wire signs, that only show in the daylight, have been found to bring handsome returns in the shape of publicity. Nevertheless, it has been tested, tried, and conclusively proven that these same boards or signs, if illuminated, will increase the publicity and advertising returns as much as 800 to 1,000 per cent; the reason we all know.

An interesting development in the illumination of such outdoor painted signs has come with the new reflector manufactured by the Reynolds Electric Flasher Manufacturing Co., of Chicago. It is a highly effective and economical white porcelain lined reflector, equipped with two lamps of different colors and so operated by a flashing mechanism to produce brilliant color-changing effects of great eye-attracting value.

The reflector is of sturdy and enduring construction. A very even distribution of light makes the sign standout in easy-to-read clearness, and the color-changing feature doubles its power for circulation.

**New Inventions**

Reported especially for this paper by H. B. Wilson & Co., Patent Attorneys, Washington, D. C. A complete copy of any of these patents will be forwarded to anyone on receipt of ten cents. In ordering copies give number of patent.

1,032,119. Electric Table-Lamp. W. A. B. Dalzell and A. C. Scroggins, Moundsville, W. Va., assignors to Fostoria Glass Co., Moundsville, W. Va.

1,032,362. Electric Lock Lamp Socket. A. J. Kempf, St. Paul, Minn.

1,030,196. Burglar Alarm. G. H. Luer, St. Paul, Minn.

1,029,723. Electric Cigar Lighter. D. E. Shea, Williamsport, Pa., assignor to D. S. Tinsman, Williamsport, Pa.

1,029,734. Illuminated Sign. P. G. Watmough, Jr., New Brighton, N. Y.

1,030,093. Electric Rat Trap. Leon Karpow, Winnipeg, Man., Can.

1,029,523. Automatic Electric Water Heater. J. I. Ayer, Cambridge, Mass., assignor to Simplex Electric Heating Co., Cambridge, Mass.

1,029,539. Rheostat.

1,029,123. Electrical Means for Magnifying Small Mechanical Effects. E. S. Heurtley, Oxford, England.

1,029,233. Electric Sad Iron. Viktor Schild, Brienz-Switz. Assignor to Jas. Weller, Passaic, N. J.

1,029,281. Burglar Alarm. O. L. Davis, Iowa City, Iowa.

1,027,739. Electric Oven or Cooker. C. A. Lauzon, Grand Rapids, Mich., Assignor to Wm. Heap & Co., Muskegon, Mich.

1,026,690. Cord-Adjuster for Electric Lamps. James McGavin, Springfield, Ill.

1,026,862. Electric Water-Heater. E. M. Hengell, San Francisco, Cal.

1,031,442. Rat Trap. Hosea Haxton, Starford, Pa.

1,031,443. Electric Iron. Wm. Heavside, Davis, Cal.

1,030,901. Electric Heating Device for Running Water. Hjalmar Lofquist, Stockholm, Sweden.

Fill Up the Valleys in Your Load Curve

You can easily fill up the "loss" valleys in your load curve and swell your profits by getting your customers to use the Audiffren-Singrun Refrigerating Machine.

It would require but little effort on the part of your men to make owners of residences, apartment houses, hotels, hospitals, factories, etc., see the great advantages of cooling refrigerators mechanically, instead of with ice, and of making ice mechanically from water which they know is absolutely clean for table use, by the use of the

**AUDIFFREN-SINGRUN
Refrigerating Machine**

You should be able to get many prospects for this machine by simply sending them the literature which we will furnish free.

This explains all the advantages of this machine so clearly and convincingly that one can hardly read it without desiring one of these machines. In fact, this literature would at least do most of the initial work for you, and our salesmen would do the rest if you but advised us the names of interested parties.

Isn't it at least worth while for you to learn more about this current-consuming machine and its great possibilities for increasing your income?

Write Our Nearest Branch for Catalog No. 50 and Full Particulars

H. W. JOHNS-MANVILLE CO.

Manufacturers of
Asbestos and
Magnesia Products

Albany	Cincinnati	Kansas City	New Orleans	San Francisco
Baltimore	Cleveland	Los Angeles	New York	Seattle
Boston	Dallas	Louisville	Omaha	St. Louis
Buffalo	Detroit	Milwaukee	Philadelphia	Syracuse
Chicago	Indianapolis	Minneapolis	Pittsburgh	

TRADE
ASBESTOS
MARK

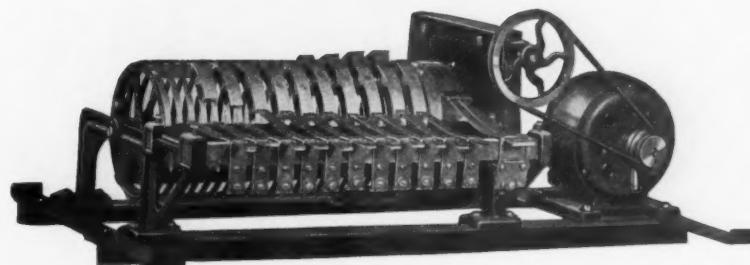
Asbestos Roofings,
Packings, Electrical
Supplies, Etc.

For Canada:—THE CANADIAN H. W. JOHNS-MANVILLE CO., LIMITED
Toronto, Ont. Montreal, Que. Winnipeg, Man. Vancouver, B. C. 1784

OUTDOOR ADVERTISING EVERYWHERE**The O. J. Gude Co., N.Y.**

Originators of Spectacular Electric Sign Advertising, and of the
"Great White Way," New York City

Owners of Electric Moving Sign U. S. Patent No. 648,677

**A Matter of Fact!
RECO FLASHERS**

have been a success for 14 years past; contain more patented features than all other makes combined and are constantly being improved. Specified by the leading Central Stations and Sign Companies.

Get Bulletin number 21, showing a large list of Sign Suggestions.

Reynolds Electric Flasher Mfg. Co.

Largest Manufacturers of Flashers in the World
Also Manufacturers of Billboard Reflectors, Transformers, Time Switches, Window Displays, etc.

617-631 W. Jackson Blvd., Chicago

1123 Broadway, New York

BENJAMIN
TWO-LIGHT
PLUG CLUSTER

For Doubling the Capacity of Your Sockets Without Extra Wiring
THIS IS IT

It just screws in—and the work is done. You have one light, but want two. Or you want to run an extra wire to another point for connecting some electrical appliance—fan, heater, curling-iron, flatiron, chafing dish, etc., and still keep your light burning. You need not rewire the place to do it.

Benjamin Plug Cluster Does the Work of Two Sockets.

For sale by all Electrical Dealers

BENJAMIN ELECTRIC MFG. COMPANY
120-128 So. Sangamon St.
CHICAGO

PATENTS

Promptly obtained OR NO FEE. Trade-Marks, Copyrights and Labels registered. TWENTY YEARS' PRACTICE. Highest references. Send model, sketch or photo, for free report on patentability. All business confidential. HAND-BOOK FREE. Explains everything. Tells How to Obtain and Sell Patents, What Inventions Will Pay, How to Get a Partner, explains best mechanical movements, and contains 300 other subjects of importance to inventors. Address,

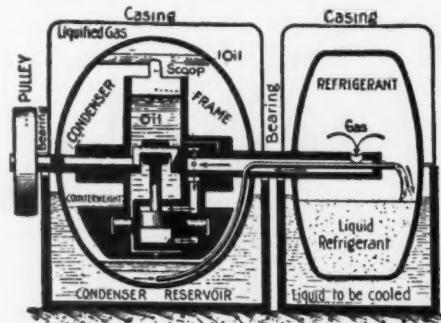
H. B. WILLSON & CO. Patent Attorneys
Box 292 Willson Bldg. WASHINGTON, D. C.



Independent Foundry Company
Portland, Oregon

The Refrigeration Opportunity

Every central station is looking forward to the day when the small motor-driven refrigerator will turn the residence consumer into a very profitable off-peak summer load. There are approximately 20,000 refrigerating machines in use in the United States, all comparatively large machines. In over 120 industries they have superseded ice refrigeration, and in many cases have actually brought an industry into being.



The same factors of economy and convenience that have made possible this enormous number of large capacity installations will obtain in the case of the smaller machines and appeal no less to the butcher, the fish merchant, the dairy, and delicatessen man than to the householder, the average family in the average home. To spread this development the central station and contractor should keep in close touch with the progress of electric refrigerating equipment and constantly foster the popular expectation and appreciation.

A new apparatus, a foreign production, known as the Audiffren-Singrun refrigerating machine, has recently been put on the

market in this country by the H. W. Johns-Manville Co., of New York, who claim that it is "the first small refrigerating and ice making machine that cannot get out of order." It is designed and equipped for service among residences, hotels, clubs, cafes, creameries, dairies, market stores, hospitals, and similar opportunities.

The power required ranges from one-half to 4 horsepower, depending upon the cooling effect or ice-making capacity of the machine.

Mechanical refrigeration by means of this machine gives a dryer cold than can be obtained by ice refrigeration, a cleaner cold, a cheaper cold, and a colder cold. In consequence, meats and vegetables remain firm, dry, and attractive, and the losses from trimmings are entirely eliminated.

Long waits for the ice-man are saved, unsatisfactory service from him is avoided, and the slop and dirt are eliminated. Best of all, the machine does not require skilled attention; *it can be safely and efficiently operated by anyone.*

In this new machine the refrigerating circuit is built in the form of a dumb-bell, with



a pulley on the end, and with a hollow shaft connecting the two bells, as shown in the accompanying illustration.

A refrigerating medium (sulphur dioxide) is sealed hermetically within the machine. It cannot leak away and therefore never has to be renewed. There are no stuffing boxes, gauges, expansion valves, or other apparatus to regulate. Lubrication is effected by a forced flow of oil, so that metal to metal contact, and therefore wear, is practically impossible. Before charging the machine at the factory, the air is entirely exhausted; hence oxidation of the oil is impossible.

By the use of a water economizer or fan, 90 per cent or more of the condensing water may be saved—an important matter where water is scarce or expensive. With this device, the water in the condenser is not changed but is automatically replenished as it evaporates.

In this arrangement a fan drives air over the condenser to increase the evaporation. The additional power required varies, but is always less than 25 per cent of that necessary for operating the refrigerating machine itself.

The cabinets are built in various types and sizes for varying service.

Have you canvassed every opportunity for the development of refrigeration business in your city?

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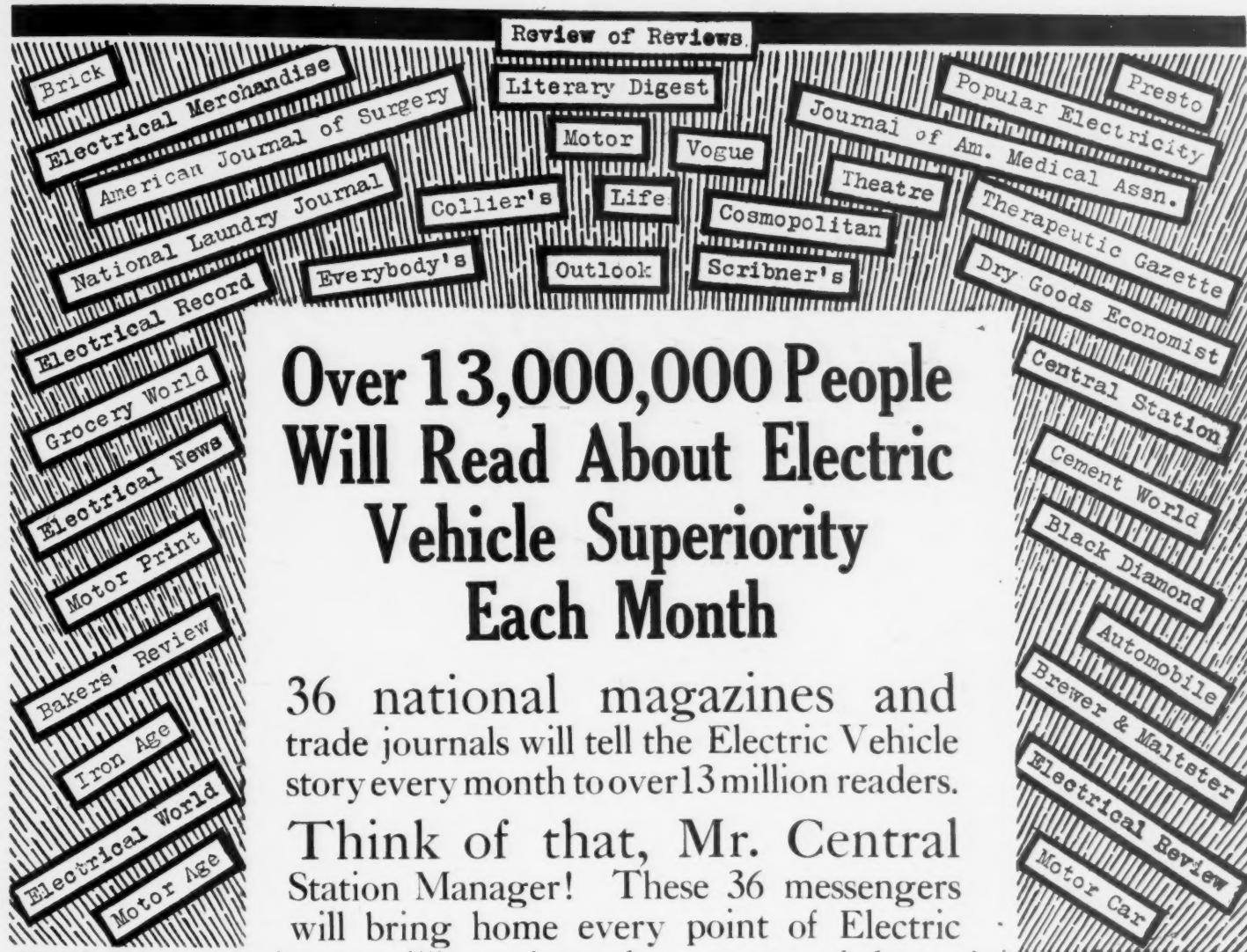
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Over 13,000,000 People Will Read About Electric Vehicle Superiority Each Month

36 national magazines and trade journals will tell the Electric Vehicle story every month to over 13 million readers.

Think of that, Mr. Central Station Manager! These 36 messengers will bring home every point of Electric

Vehicle superiority to millions of people — many of them right in your own territory—in a way *they can't overlook*. The sale of Electric Vehicles — both pleasure and commercial — is growing *steadily*. This campaign of persistent advertising is going to quicken the step of the march forward.

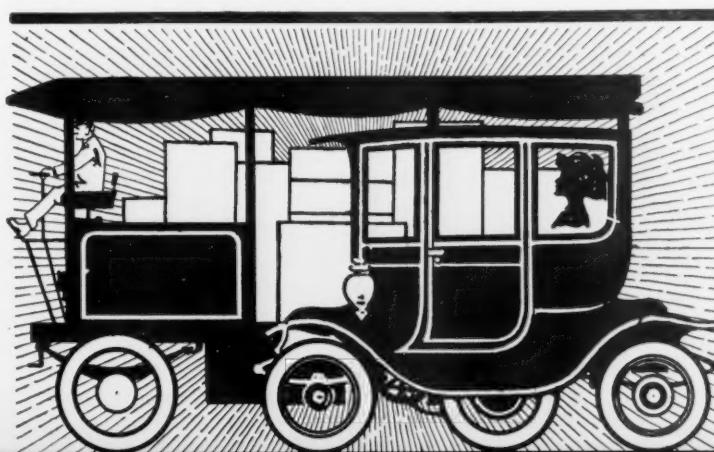
Every Central Station Should Take An Active Interest in This Campaign

This campaign of education has a direct bearing on *your* business. The charging of Electric Vehicles will lessen the drain of your "valley load" and make off-peak hours far more profitable.

We want to tell you how you can link up this nation-wide campaign to *your* Central Station and share in the assured results. You can do this with but little expense on your part. Why not write for further information today?

ELECTRIC VEHICLE ASSOCIATION OF AMERICA
BOSTON NEW YORK: 124 W. 42nd St. CHICAGO

(13)



It won't be many weeks before the biggest electric sign opportunity of the year is with us again. What are we going to do about it—you and I—in your town?

With the merchants everything works up to the Christmas Market. That's the big pie. That's when an Electric Sign is worth the most to them.

Most of their Christmas stock is already bought. Their plans are made and in the making. It's time to get to work on your autumn sign campaign—right now—if you are to pick the juicy fruit.

I'll help you sell the signs and I'll build them for you, the kind of Electric Signs that will keep this business sweet after we've landed it.

—T. E. Valentine.

Valentine Electric Sign Co.

Atlantic City, New Jersey